

33



Hisey

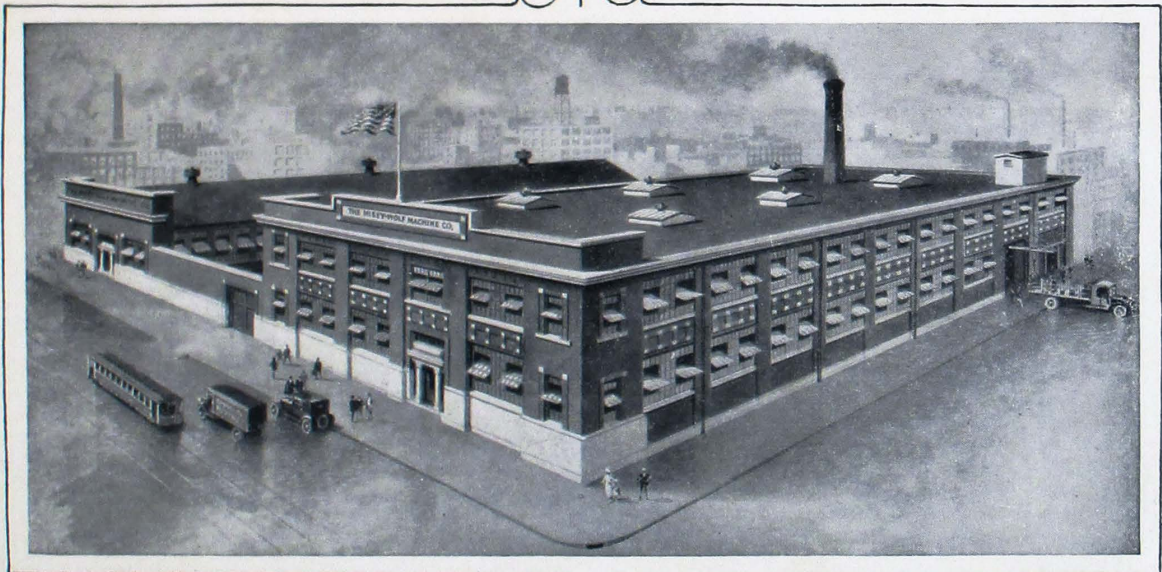
**Electric
DRILLS
GRINDERS
BUFFERS**

**THE HISEY-WOLF MACHINE CO.
CINCINNATI, OHIO-U.S.A.**

P. A. REBOK
5518 MORRIS STREET
PHILADELPHIA
TELEPHONE-GERMANTOWN 3448

HISEY

ELECTRIC
DRILLS GRINDERS
BUFFERS



Plant of THE HISEY-WOLF MACHINE CO. Cincinnati, Ohio. U.S.A. Established 1896.
COPYRIGHT 1930, THE HISEY-WOLF MACHINE CO.

ELECTRIC BENCH and FLOOR GRINDERS

WEIGHT SCIENTIFICALLY DISTRIBUTED—Not Mere Bulk

The Motor, enclosed and dust proof, is guaranteed to develop the name-plate horsepower rating for continuous service with a temperature rise not to exceed 40° C. HISEY Grinding Machine Motors are designed in accordance with the A. I. E. E. standards and are liberally proportioned to withstand the heavy momentary overloads (from 75 to 100 per cent above name-plate rating) so common in all grinding operations.

Single Phase alternating current machines are equipped with Improved Commutating Type Repulsion Induction Motors, which unlike the old Split Phase Motors have no dragging centrifugal switch. They will start and pick up speed instantly under any load within twice their rated capacity. Starting current under all conditions is unusually low, being less than one-third the current consumption of Split Phase Motors. Low voltage so often encountered, due to line drop and other existing conditions which cannot always be overcome, is the cause of much trouble in Split Phase Motors.

Low voltage has no objectionable effect on these new HISEY Single Phase Machines.

Two and Three Phase alternating current machines are equipped with motors of squirrel cage design. They are ruggedly built with a liberal factor of safety, and reserve power. Grinders for 60 cycle service are standard and usually carried in stock, however, most machines can be supplied to special order for 25, 40 and 50 cycles as listed under each size and type.

Direct Current machines are equipped with compound wound motors designed especially for the service. They have large box type brush holders and oversize commutators with liberal brush area affording long life.

Bearings are High Grade oversize Ball Bearings, mounted in end caps in closest proximity to the Wheels. They are completely enclosed and protected from dust and grit. Timken Roller Bearings where listed are optional without extra charge.

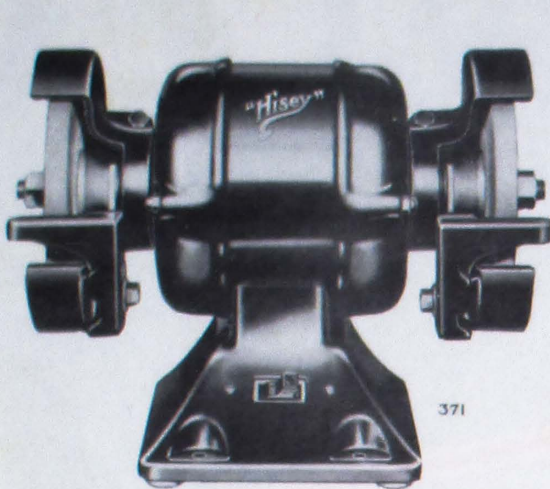
Lubrication. When machine is installed the lubricating chambers should be filled (preferably to the overflow) through conveniently located cups, after which additional lubricant need only be added every few months depending upon the service. Drain plug permits quick flushing of bearings and chambers, which should be done at least once or twice a year.

Motor Starter and Switch Equipment conform to E. P. C. recommendations. Every HISEY Grinder is furnished complete with approved switch control, which is a most important feature and worthy of careful consideration.

Inspection Covers on end bell permit full view and access while machine is in operation.

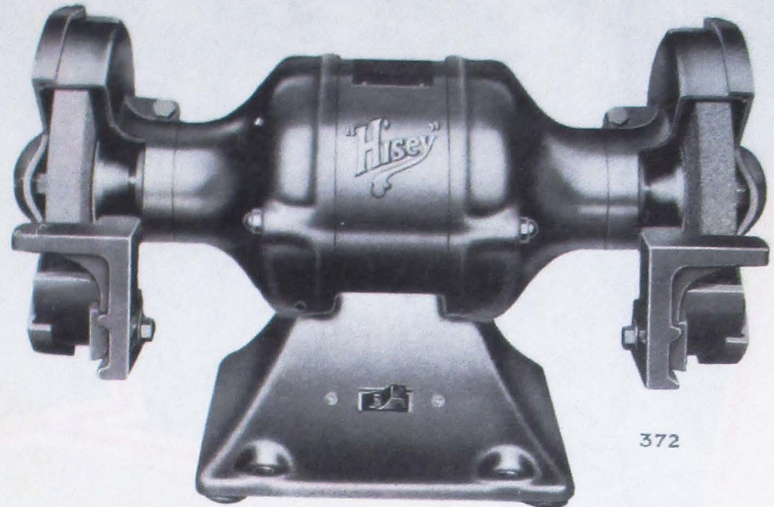
Grinding Wheels regularly furnished are of such grade and grain as our long experience has proven best adapted for each size machine. For best results it is necessary that the proper wheel be used and if a description of the work is given we will supply wheels best suited for the work.

BENCH AND FLOOR GRINDERS



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6 INCH WHEEL SIZE



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7 AND 10 INCH WHEEL SIZES
 GUARDS HAVE END COVERS

These new Grinders, sturdily built throughout, have ball bearings with seals excluding dust and grit. Motors are totally enclosed.

New Repulsion-Induction Motor is standard equipment on single phase 10 inch size. Other sizes have improved split-phase Motors with low starting current.

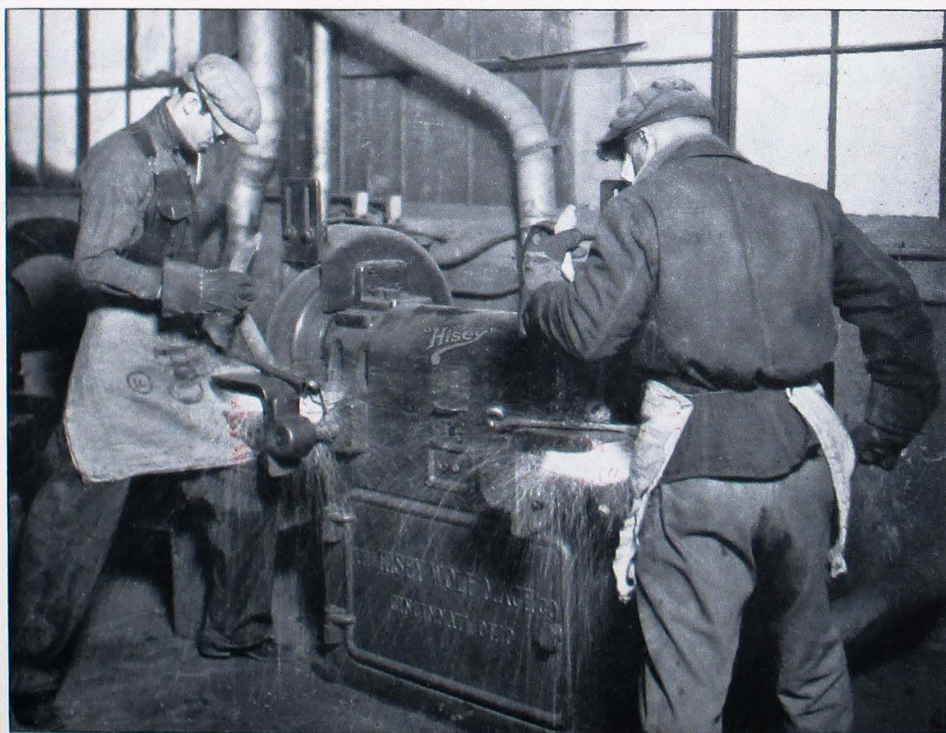
Pedestal can be furnished to order for floor mounting. All machines are furnished with 2 Grinding Wheels, Guards, and Attaching Cord.

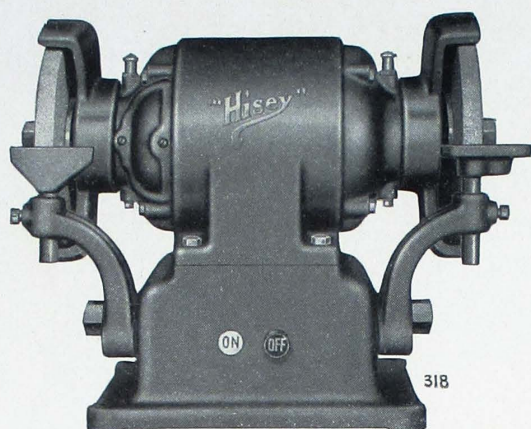
60 CYCLE ALTERNATING CURRENT

CODE WORD	TYPE	VOLTS AND PHASE	SIZE WHEELS IN INCHES	H.P.	SPEED R.P.M. NO LOAD	WHEEL ARBOR IN INCHES	SIZE BASE AT BOTTOM	DISTANCE BETWEEN WHEEL CENTERS	HEIGHT FLOOR TO SPINDLE	WEIGHT IN POUNDS	
										NET	GROSS
XBFEF	OLA	110V-1PH	6 x 3/4	1/4	3500	1/2	7 x 9	11	6	45	60
XBGFG	OLA	220V-1PH									
XBHGK	OLA	220V-3PH									
XEABC	OLA	440V-3PH									
XEBEF	ORA	110V-1PH	7 x 3/4	1/3	3500	1/2	8 x 10	14 1/2	6	51	73
XEFGH	ORA	220V-1PH									
XEGHK	ORA	220V-3PH									
XEHKL	ORA	440V-3PH									
XEKLM	OMA	110V-1PH	10 x 1	3/4	1800	3/4	10 x 11	18 1/4	10	120	163
XELMO	OMA	220V-1PH									
XEONP	OMA	220V-3PH									
XEPOR	OMA	440V-3PH									

DIRECT CURRENT

XBKHL	OLD	115	6 x 3/4	1/4	3500	1/2	7 x 9	11	6	45	60
XBLKO	OLD	230									
XERPS	ORD	115	7 x 3/4	1/3	3500	1/2	8 x 10	14 1/2	6	51	73
XESRT	ORD	230									
XETSU	OMD	115	10 x 1	3/4	1800	3/4	10 x 11	18 1/4	10	120	163
XEUTV	OMD	230									





6-INCH and 7-INCH WHEEL BENCH GRINDERS

$\frac{1}{4}$ -H. P. CAPACITY
BALL BEARING EQUIPPED

THE MOTOR

Single phase machines are equipped with Improved Commutating Type Repulsion Induction Motors which comply with the more stringent Electric Codes now in effect in many localities.

Other important details on page 2.

Twist Drill Grinding Attachment and Accessories on Pages 20 and 21 Furnished to Order.

Enclosed Wheel Guards Type B, per Page 20, Furnished to Order.

Small and compact, these HISEY Grinders are of the same general design and construction as the larger machines which are invariably used as a basis of comparison.

A two-pole Underwriters' approved Push Button Switch mounted in the base and free from interference is standard equipment.

60 CYCLE ALTERNATING CURRENT—CONTINUOUS DUTY (40° C.) H. P. RATING

Code Word	Type	Volts	Size of Wheels in Inches	Speed R.P.M. No Load	H.P.	Diam. of Spindle where Wheels go on in Inches	Distance between Wheel Centers in Inches	Size of Base at Bottom in Inches	Height Bottom of Base to Center of Spindle in Inches	Weight in Pounds		Boxed Dimensions in Inches	Standard Equipment
										Net	Gross		
WOVIO WOVLP WOVOQ	1LBA 1LBA 1LBA	110 V., 1 Ph. 220 V., 1 Ph. 220 V., 3 Ph.	6x $\frac{1}{2}$	3500	$\frac{1}{4}$	$\frac{1}{2}$	11 $\frac{1}{4}$	7 $\frac{1}{4}$ x8 $\frac{3}{4}$	7 $\frac{3}{4}$	60	90	15x15x20	2 Grinding Wheels. Safety Motor Switch. 2 Adjustable Guards.
WXCDG WXDEH WXEFK	1 $\frac{1}{2}$ LBA 1 $\frac{1}{2}$ LBA 1 $\frac{1}{2}$ LBA	110 V., 1 Ph. 220 V., 1 Ph. 220 V., 3 Ph.	7x $\frac{3}{4}$	3500	$\frac{1}{4}$	$\frac{5}{8}$	11 $\frac{1}{4}$	7 $\frac{1}{4}$ x8 $\frac{3}{4}$	7 $\frac{3}{4}$	68	98	15x15x20	

Standard voltage for 50 cycles at no extra charge.

Single phase machines are for operation from lamp socket. Three phase grinders are for connecting to power circuit lines.

Special motor specifications can be furnished at 10 per cent extra as follows:

For single phase service for special voltage from 80 to 250 volts.

For three phase service for special voltage from 80 to 250 volts.

For two phase service for any voltage from 80 to 250 volts.

For 440 volts, two or three phase service for 50 or 60 cycles 25 per cent extra.

DIRECT CURRENT—CONTINUOUS DUTY (40° C.) H. P. RATING

WOVWX WOVXZ	1LBD 1LBD	115 230	6x $\frac{1}{2}$	3600	$\frac{1}{4}$	$\frac{1}{2}$	11 $\frac{1}{4}$	7 $\frac{1}{4}$ x8 $\frac{3}{4}$	7 $\frac{3}{4}$	60	90	15x15x20	2 Grinding Wheels Safety Motor Switch. 2 Adjustable Guards.
WXKLR WXLOS	1 $\frac{1}{2}$ LBD 1 $\frac{1}{2}$ LBD	115 230	7x $\frac{3}{4}$	3600	$\frac{1}{4}$	$\frac{5}{8}$	11 $\frac{1}{4}$	7 $\frac{1}{4}$ x8 $\frac{3}{4}$	7 $\frac{3}{4}$	68	98	15x15x20	

The above Direct Current Grinders supplied for special voltage at 10 per cent extra from 80 to 250 volts.

6-INCH and 7-INCH WHEEL FLOOR GRINDERS

¼-H. P. CAPACITY

BALL BEARING EQUIPPED

Small and compact, these HISEY Grinders are of the same general design and construction as the larger machines which are invariably used as a basis of comparison.

A two-pole Underwriters' approved Push Button Switch mounted in the base and free from interference is standard equipment.

Motor same as described on page 4.

OTHER IMPORTANT DETAILS ON PAGE 2.

**Twist Drill Grinding Attachment and Accessories on
Pages 20 and 21 Furnished to Order.**

Enclosed Wheel Guards Type B, per page 20, furnished to order.



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60 CYCLE ALTERNATING CURRENT—CONTINUOUS DUTY (40° C.) H. P. RATING

Code Word	Type	Volts	Size of Wheels in Inches	Speed R.P.M. No Load	H.P.	Diam. of Spindle where Wheels go on in Inches	Distance between Wheel Centers in Inches	Diam. of Base at Bottom in Inches	Height Bottom of Base to Center of Spindle in Inches	Weight in Pounds		Boxed Dimensions in Inches	Standard Equipment
										Net	Gross		
WOVRT WOVSU WOVUZ	1LA 1LA 1LA	110 V., 1 Ph. 220 V., 1 Ph. 220 V., 3 Ph.	6x½	3500	¼	½	11 ¼	16	40	160	230	15x17x50	Two Grinding Wheels. Safety Motor Starter. Two Adjustable Guards. Water Pot.
WXFGL WXGHO WXHKP	1½LA 1½LA 1½LA	110 V., 1 Ph. 220 V., 1 Ph. 220 V., 3 Ph.	7x¾	3500	¼	⅝	11 ¼	16	40	168	238	15x17x50	

Standard voltage for 50 cycles at no extra charge.

Single phase machines are for operation from lamp socket. Three phase grinders are for connecting to power circuit lines.

Special motor specifications can be furnished at 10 per cent extra as follows:

For single phase service for special voltage from 80 to 250 volts.

For three phase service for special voltages from 80 to 250 volts.

For two phase service for any voltages from 80 to 250 volts.

For 440 volts, two or three phase service for 50 or 60 cycles, 25 per cent extra.

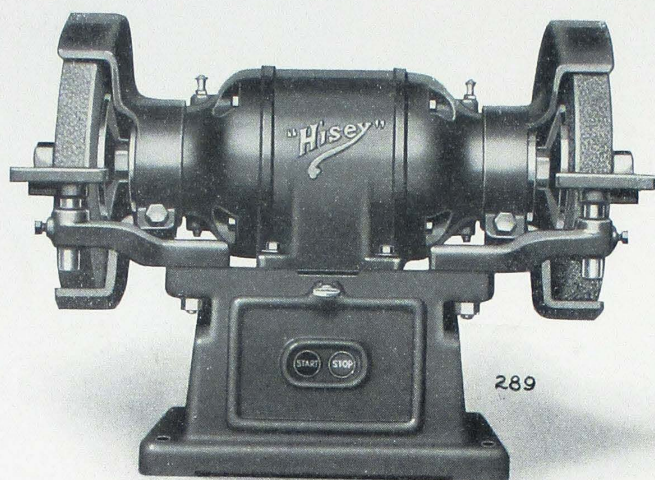
DIRECT CURRENT—CONTINUOUS DUTY (40° C.) H. P. RATING

WUABC WUACD	1LD 1LD	115 230	6x½	3600	¼	½	11 ¼	16	40	160	230	15x17x50	Two Grinding Wheels. Safety Motor Starter. Two Adjustable Guards. Water Pot.
WXOPT WXPRU	1½LD 1½LD	115 230	7x¾	3600	¼	⅝	11 ¼	16	40	68	238	15x17x50	

The above Direct Current Grinders supplied for special voltage at 10% extra from 80 to 250 volts.

"Hisey"**ELECTRIC DRILLS-GRINDERS-BUFFERS**

THE HISEY-WOLF MACHINE CO. (Est. 1896) CINCINNATI, OHIO U.S.A.

"Hisey" $\frac{1}{2}$, 1 and 2 H. P. CAPACITY**BENCH GRINDERS****BALL BEARING EQUIPPED**

SEE IMPORTANT DETAILS, PAGE 2

Are as compact as consistent with their advantageous design requiring minimum mounting space. They are ruggedly constructed throughout with enough weight to give added features.

FURNISHED TO ORDER

Enclosed Wheel Guards Type B shown on page 20.

Combination Exhaust Guards Type A on page 20.

Twist Drill Grinding Attachment and other accessories on pages 20 and 21.

60 CYCLE ALTERNATING CURRENT—CONTINUOUS DUTY (40° C.) H. P. RATING

Code Word	Type	Volts	Size of Wheels in Inches	Speed R.P.M. No Load	H.P.	Diam. of Spindle where Wheels go on in Inches	Distance between Wheel Centers in Inches	Size of Base at Bottom in Inches	Height Bottom of Base to Center of Spindle in Inches	Weight in Pounds		Boxed Dimensions in Inches	Standard Equipment
										Net	Gross		
WOCAB WOCBC WOCED WOTIL	2LBA 2LBA 2LBA 2LBA	110 V., 1 Ph. 220 V., 1 Ph. 220 V., 3 Ph. 440 V., 3 Ph.	8x $\frac{3}{4}$ or 7x $\frac{3}{4}$ *	3425	$\frac{1}{2}$	$\frac{5}{8}$	14	8 $\frac{1}{2}$ x10 $\frac{1}{2}$	9 $\frac{1}{2}$	100	150	12x18x20	2 Grinding Wheels as listed. Safety Motor Starter. Adjustable Open End Guards. Approved Condulet Connector.
WOCDE WOCFE WOCFG WOTJM	3LBA 3LBA 3LBA 3LBA	110 V., 1 Ph. 220 V., 1 Ph. 220 V., 3 Ph. 440 V., 3 Ph.	10x1 †	1725	1	$\frac{3}{4}$	19 $\frac{1}{2}$	11 $\frac{1}{2}$ x14 $\frac{3}{4}$	12 $\frac{1}{2}$	250	325	16x20x30	2 Grinding Wheels as listed. Safety Motor Starter. Adjustable Open End Guards. Approved Condulet Connector.
WOCGH WOCKH WOCIL WOTKO	4LBA 4LBA 4LBA 4LBA	110 V., 1 Ph. 220 V., 1 Ph. 220 V., 3 Ph. 440 V., 3 Ph.	12x1 $\frac{1}{2}$ ‡	1725	2	1	21 $\frac{3}{4}$	11 $\frac{1}{2}$ x14 $\frac{3}{4}$	13 $\frac{1}{4}$	300	400	20x24x32	2 Grinding Wheels as listed. Safety Motor Starter. Adjustable Open End Guards. Approved Condulet Connector.

Single Phase Machines have Repulsion Induction Motors and can conveniently be connected to any lamp socket.

Special Motor Specifications for above machines can be furnished as follows at no extra charge:

For two phase service for 220, 440 or 550 volts.

For three phase service at 550 volts.

For 50 cycles at 2825 R. P. M. for $\frac{1}{2}$ H. P., and 1425 R. P. M. for 1 and 2 H. P.

Furnished as follows at 10 per cent extra:

For 40 cycles at 2225 R. P. M. For 25 cycles at 1425 R. P. M.

For special intermediate voltage between 80 and 550 volts. Single phase up to 275 volts.

DIRECT CURRENT—CONTINUOUS DUTY (40° C.) H. P. RATING

WOCJM WOCKN	2LBD 2LBD	115 230	8x $\frac{3}{4}$ or 7x $\frac{3}{4}$ *	3550	$\frac{1}{2}$	$\frac{5}{8}$	14	8 $\frac{1}{2}$ x10 $\frac{1}{2}$	9 $\frac{1}{2}$	100	150	12x18x20	2 Grinding Wheels as listed. Safety Motor Starter. Adjustable Open End Guards. Approved Condulet Connector.
WOCLO WOCMP	3LBD 3LBD	115 230	10x1 †	2000	1	$\frac{3}{4}$	19 $\frac{1}{2}$	11 $\frac{1}{2}$ x14 $\frac{3}{4}$	12 $\frac{1}{2}$	250	325	16x20x30	2 Grinding Wheels as listed. Safety Motor Starter. Adjustable Open End Guards. Approved Condulet Connector.
WOCNR WOCOS	4LBD 4LBD	115 230	12x1 $\frac{1}{2}$ ‡	1800	2	1	21 $\frac{3}{4}$	11 $\frac{1}{2}$ x14 $\frac{3}{4}$	13 $\frac{1}{4}$	300	400	20x24x32	2 Grinding Wheels as listed. Safety Motor Starter. Adjustable Open End Guards. Approved Condulet Connector.

Special Motor Specifications Type 2LBD and 3LBD for special voltages from 32 to 250 volts at 10 per cent extra.

Type 4LBD supplied for special voltages from 80 to 250 volts at 10 per cent extra. For 550 volts 30 per cent extra.

*Seven-inch wheels are standard equipment. **Eight-inch wheels furnished to order without extra charge.**

†Furnished to order with 10x1 $\frac{1}{2}$ inch wheels and guards at standard price.

‡Furnished to order with 12x2 inch wheels and guards at standard price.

1/2, 1 and 2 H. P. CAPACITY

FLOOR GRINDERS

BALL BEARING EQUIPPED

SEE IMPORTANT DETAILS, PAGE 2

These machines are of the same symmetrical and advantageous design as the Bench Grinders of corresponding sizes described on page 6.

As can be seen the column is proportioned to give maximum foot room for the operator and is fitted with door for convenient access to Motor Starter, as supplied with 1 and 2 H. P. machines.

These machines can be furnished for the same special motor specifications as listed on page 6.

FURNISHED TO ORDER

Enclosed Wheel Guards Type B shown on page 20.

Combination Exhaust Guards Type A on page 20.

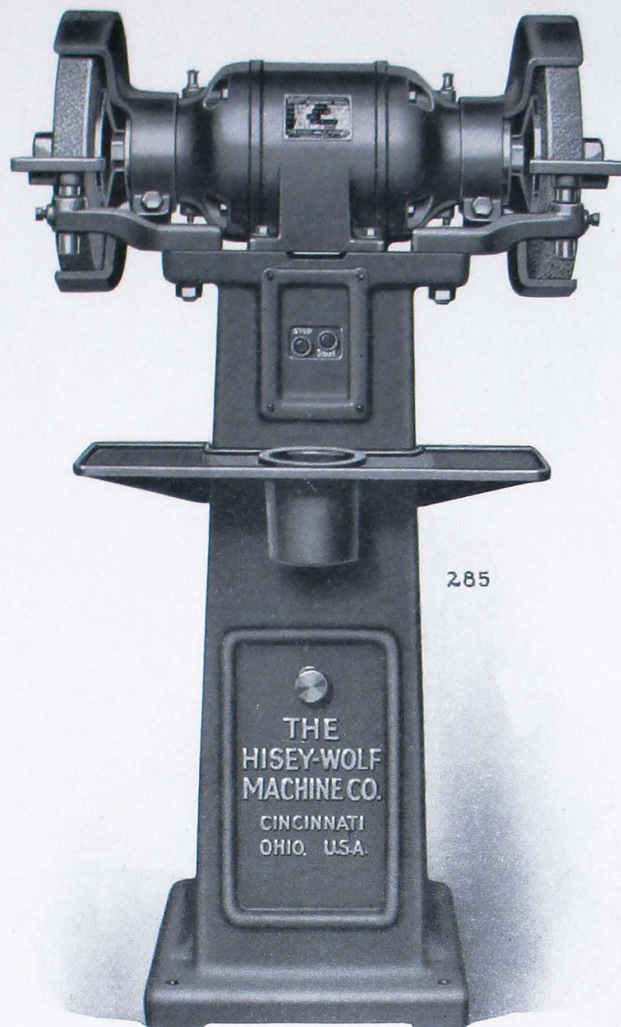
Twist Drill Grinding Attachment and other accessories on pages 20 and 21.

Foot Treadle Switch as shown on page 18.

Automatic Grinder Lights on page 18.

Exhauster Equipment shown on page 19.

60 CYCLE ALTERNATING CURRENT— CONTINUOUS DUTY (40° C.) H. P. RATING



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Code Word	Type	Volts	Size of Wheels in Inches	Speed R.P.M. No Load	H.P.	Diam. of Spindle where Wheels go on in Inches	Distance between Wheel Centers in Inches	Size of Base at Bottom in Inches	Height Bottom of Base to Center of Spindle in Inches	Weight in Pounds		Boxed Dimensions in Inches	Standard Equipment
										Net	Gross		
WOCPT WOCRU WOCWS WOTLP	2LA 2LA 2LA 2LA	110 V., 1 Ph. 220 V., 1 Ph. 220 V., 3 Ph. 440 V., 3 Ph.	8x3/4 or 7x3/4	3425	1/2	5/8	14	14x14 3/4	39	200	300	18x20x50	Same as for Type 2LBA on page 6, including Water Pot and Tool Tray.
WOCTY WOCUZ WOCVL WOTMQ	3LA 3LA 3LA 3LA	110 V., 1 Ph. 220 V., 1 Ph. 220 V., 3 Ph. 440 V., 3 Ph.	10x1	1725	1	3/4	19 1/2	14x14 3/4	38	390	500	24x30x50	Same as for Type 3LBA on page 6, including Water Pot and Tool Tray.
WOCWO WOCXP WOCYR WOTNR	4LA 4LA 4LA 4LA	110 V., 1 Ph. 220 V., 1 Ph. 220 V., 3 Ph. 440 V., 3 Ph.	12x1 1/2	1725	2	1	21 3/4	14x14 3/4	38	450	600	26x35x50	Same as for Type 4LBA on page 6, including Water Pot and Tool Tray.

DIRECT CURRENT—CONTINUOUS DUTY (40° C.) H. P. RATING

WOCZT WODAF	2LD 2LD	115 230	8x3/4 or 7x3/4*	3550	1/2	5/8	14	14x14 3/4	39	200	300	18x20x50	Same as for Type 2LBD on page 6, including Water Pot and Tool Tray.
WODBG WODCH	3LD 3LD	115 230	10x1	2000	1	3/4	19 1/2	14x14 3/4	38	390	500	24x30x50	Same as for Type 3LBD on page 6, including Water Pot and Tool Tray.
WODDI WODEK	4LD 4LD	115 230	12x1 1/2	1800	2	1	21 3/4	14x14 3/4	38	450	600	26x35x50	Same as for Type 4LBD on page 6, including Water Pot and Tool Tray.

*Seven-inch wheels are standard equipment. Eight-inch wheels furnished to order without extra charge.

†Furnished to order with 10x1 1/2 inch wheels and guards at standard price.

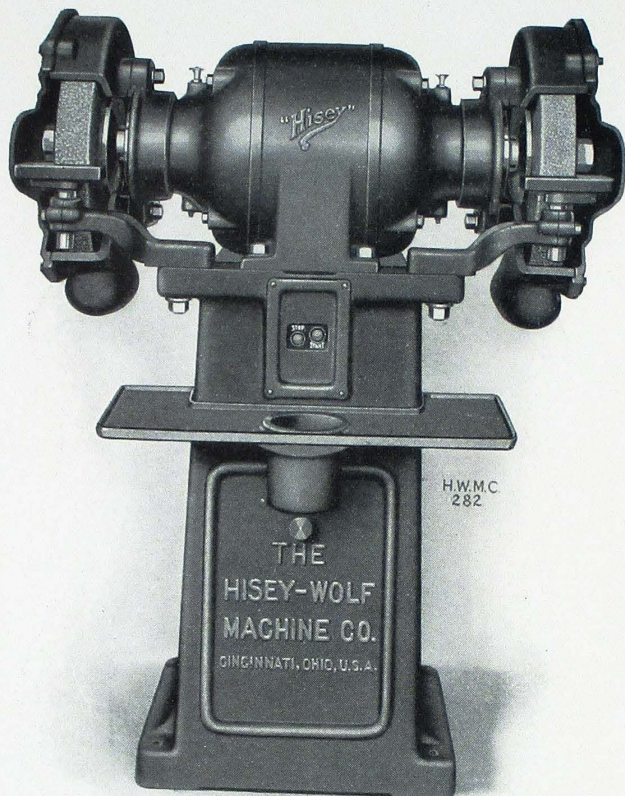
‡Furnished to order with 12x2 inch wheels and guards at standard price.

"Hisey"**ELECTRIC DRILLS-GRINDERS-BUFFERS**

THE HISEY-WOLF MACHINE CO. (Est. 1896) CINCINNATI, OHIO U.S.A.

"Hisey"

2½ H. P. and 3½ H. P.

PRODUCTION GRINDERS**BALL BEARING EQUIPPED**

SEE IMPORTANT DETAILS, PAGE 2.

For heavy tool grinding and general foundry work. Equipped with high grade ball bearings and powerful motor with liberal overload capacity.

Combination Exhaust Wheel Guards as shown are standard equipment.

FURNISHED TO ORDER

Foot Treadle Switch as shown on page 18.

Automatic Grinder Lights on page 18.

Exhauster Equipment shown on page 19.

Attachments and Accessories, pages 20 and 21.

60 CYCLE ALTERNATING CURRENT—CONTINUOUS DUTY (40° C.) H. P. RATING

Code Word	Type	Volts	Size of Wheels in Inches	Speed R.P.M. No Load	H.P.	Diam. of Spindle where Wheels go on in Inches	Distance between Wheel Centers in Inches	Size of Base at Bottom in Inches	Height Bottom of Base to Center of Spindle in Inches	Weight in Pounds		Boxed Dimensions in Inches	Standard Equipment
										Net	Gross		
WODFL WODGM	5LA 5LA	220 V., 3 Ph. 440 V., 3 Ph.	14x2	1725	2½	1¼	27½	16x18½	36	700	800	24x40x50	Combination Exhaust Wheel Guards. Automatic Motor Starter. Approved Condulet Connector. Wheels to order only.
WODHN WODIO	6LA 6LA	220 V., 3 Ph. 440 V., 3 Ph.	14x3	1725	3½	1¼	28½	16x18½	36	775	875	24x40x50	

Special Motor Specifications for above machines can be furnished as follows at no extra charge:

For two phase service for 220, 440 or 550 volts.

For three phase service at 550 volts.

For 50 cycles at speed 1425 R. P. M.

Furnished as follows at 10 per cent extra:

For single phase 110 and 220 volts or any voltage up to 275 volts for 50 or 60 cycles with Repulsion Induction Motors.

For 40 cycles speed 1125 R. P. M. For 25 cycles speed 1425 R. P. M.

At speed 1125 R. P. M. for 60 cycle service.

For special intermediate voltages between 80 and 550 volts.

DIRECT CURRENT—CONTINUOUS DUTY (40° C.) H. P. RATING

WODLS WODMT	5LD 5LD	115 230	14x2	1725	2½	1¼	27½	16x18½	36	700	800	24x40x50	Combination Exhaust Wheel Guards. Automatic Motor Starter. Approved Condulet Connector. Wheels to order only.
WODNU WODOV	6LD 6LD	115 230	14x3	1725	3½	1¼	28½	16x18½	36	775	875	24x40x50	

The above Direct Current machines can be supplied for special higher voltages up to 250 volts at 10 per cent extra. For 550 volts 30 per cent extra.

5 and 7½ H. P. PRODUCTION GRINDERS

BALL BEARING EQUIPPED

SEE IMPORTANT DETAILS, PAGE 2

These sturdy Electric Floor Stand Grinders are recommended for heavy duty production and general utility work.

Exhaust Wheel Guards, adjustable to the wear of the wheel, are standard equipment.

The Motors designed in accordance with A. I. E. E. standard, are liberally proportioned and will withstand a 100 per cent momentary overload.

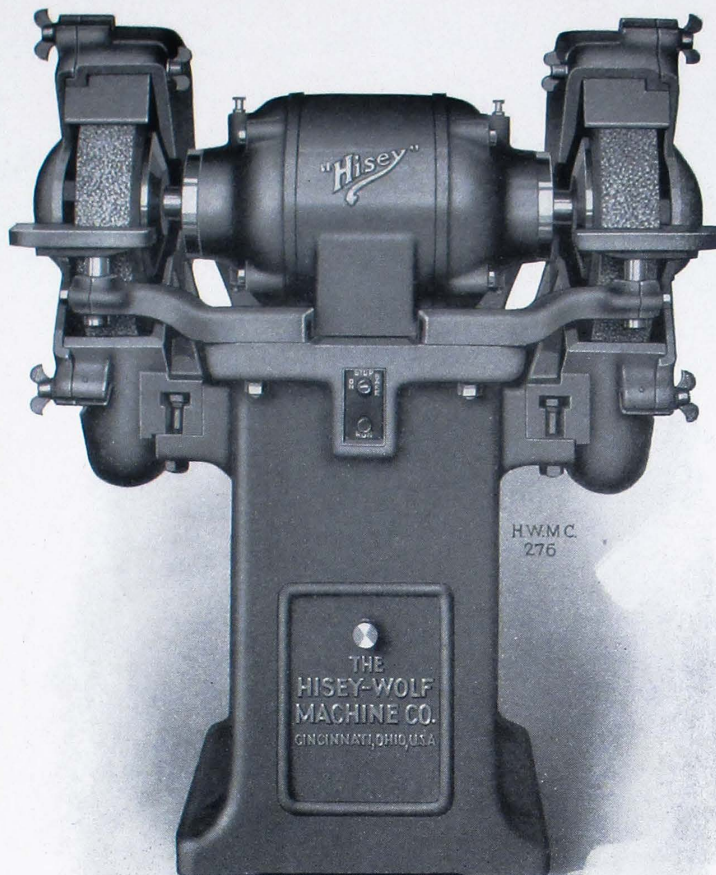
FURNISHED TO ORDER

Foot Treadle Switch as shown on page 18.

Automatic Grinder Lights on page 18.

Exhauster Equipment shown on page 19.

Attachments and Accessories, pages 20 and 21.



60 CYCLE ALTERNATING CURRENT—CONTINUOUS DUTY (40° C.) H. P. RATING

Code Word	Type	Volts	Size of Wheels in Inches	Speed R.P.M. No Load	H.P.	Diam. of Spindle where Wheels go on in Inches	Distance between Wheel Centers in Inches	Size of Base at Bottom in Inches	Height Bottom of Base to Center of Spindle in Inches	Weight in Pounds		Boxed Dimensions in Inches	Standard Equipment
										Net	Gross		
WODSY	7LA	220 V., 2 Ph.	18x3	1140	5	1½	28	20x21	36	1300	1500	29x43x51	Automatic Motor Starter. Exhaust Wheel Guards. Approved Condulet Connector. Wheels to order only.
WODTZ	7LA	220 V., 3 Ph.											
WOEBC	7LA	440 V., 2 Ph.											
WOECD	7LA	440 V., 3 Ph.											
WYSTU	8LA	220 V., 2 Ph.	18x3	1140	7½	1½	28	20x21	36	1400	1600	30x45x55	Automatic Motor Starter. Exhaust Wheel Guards. Approved Condulet Connector. Wheels to order only.
WYTUV	8LA	220 V., 3 Ph.											
WYUVW	8LA	440 V., 2 Ph.											
WYVXY	8LA	440 V., 3 Ph.											

Special Motor Specifications for above machines can be furnished as follows at no extra charge:

For 550 volts for two or three phase service.

For 50 cycles at speed 1425 R. P. M. recommended for 16-inch wheels.

Furnished as follows at 10 per cent extra:

For single phase 5-H. P. size 110 and 220 volts or any intermediate voltage up to 275 volts for 50 or 60 cycles with Repulsion Induction Motor.

For 40 cycles speed 1125 R. P. M. For 25 cycles speed 1425 R. P. M. recommended for 16-inch wheels.

For special intermediate voltage between 110 and 550 volts.

ECONOMY—EFFICIENCY

The above grinders used in tandem with Type 6LA Grinders shown on page 8 afford a most practical combination, as the wheels when worn can be transferred, and used for the same class of work — — — with the same economy and efficiency as when new.

"Hisey"**ELECTRIC DRILLS-GRINDERS-BUFFERS**

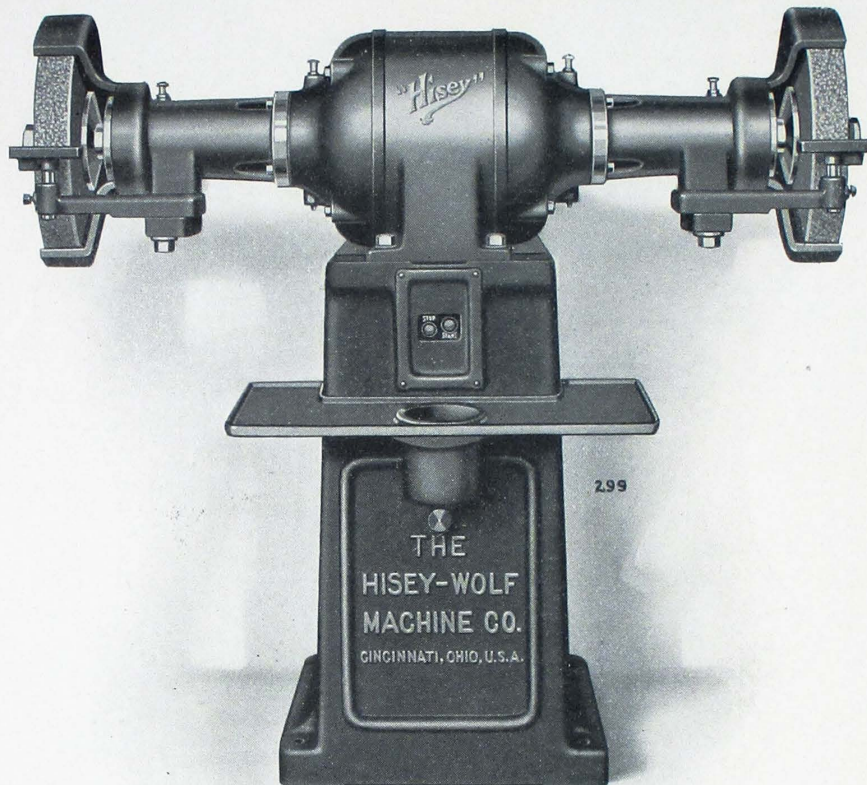
THE HISEY-WOLF MACHINE CO. (Est. 1896) CINCINNATI, OHIO U.S.A.

"Hisey"**WIDE SWING FLOOR GRINDERS**

2½-H. P. and 3½-H. P.

EQUIPPED WITH FOUR BALL BEARINGS

SEE IMPORTANT DETAILS, PAGE 2

**FURNISHED TO ORDER**

Foot Treadle Switch as shown on page 18.

Automatic Grinder Lights on page 18.

Exhauster Equipment shown on page 19.

Attachments and Accessories, pages 20 and 21.

These machines are particularly adapted for grinding stove and furnace castings, also other large and irregular shaped pieces.

60 CYCLE ALTERNATING CURRENT—CONTINUOUS DUTY (40° C.) H. P. RATING

Code Word	Type	Volts	Size of Wheels in Inches	Speed R.P.M. No Load	H.P.	Diam. of Spindle where Wheels go on in Inches	Distance between Wheel Centers in Inches	Size of Base at Bottom in Inches	Height Bottom of Base to Center of Spindle in Inches	Weight in Pounds		Boxed Dimensions in Inches	Standard Equipment
										Net	Gross		
WABAX WACAD	5LWA 5LWA	220 V., 3 Ph. 440 V., 3 Ph.	12x2	1725	2½	1¼	44½	16x18½	36	750	900	24x50x59	Wheel Guards as shown. Automatic Motor Starter. Approved Condulet Connector. Wheels to order only.
WODJP WODKR	6LWA 6LWA	220 V., 3 Ph. 440 V., 3 Ph.	14x2½	1725	3½	1¼	45½	16x18½	36	825	975	24x50x59	

Special Motor Specifications for above machines can be furnished as follows at no extra charge:

For two phase service for 220, 440 or 550 volts.

For three phase service at 550 volts.

For 50 cycles at speed 2825 R. P. M.

Furnished as follows at 10 per cent extra:

For single phase 110 and 220 volts for 50 or 60 cycles with Repulsion Induction Motors.

For 40 cycles speed 2225 R. P. M. For 25 cycles speed 1425 R. P. M.

For special intermediate voltage between 80 and 550 volts. Single phase up to 275 volts.

At speed 1125 R. P. M. for 60 cycle service.

DIRECT CURRENT—CONTINUOUS DUTY (40° C.) H. P. RATING

WKBAC WKCBE	5LWD 5LWD	115 230	12x2	1725	2½	1¼	44½	16x18½	36	750	900	24x50x59	Wheel Guards as shown. Automatic Motor Starter. Approved Condulet Connector. Wheels to order only.
WODPW WODRX	6LWD 6LWD	115 230	14x2½	1725	3½	1¼	45½	16x18½	36	825	975	24x50x59	

The above Direct Current machines can be supplied for special higher voltages up to 250 volts at 10 per cent extra. For 550 volts 30 per cent extra.

TexDrive SNAGGING GRINDERS

PATENTS PENDING

Shown and described in more detail on Pages 12 and 13

Heretofore, due to motor characteristics, it has been impossible to obtain the most efficient wheel speeds with a direct connected motor drive.

With the advent of the HISEY TexDrive Grinders, however, this is no longer a necessary evil—as these machines can be furnished with the *most efficient speed for any kind of High Speed or Vitrified wheel*. However, the balance of the machine must also be in keeping with these new Efficiency Standards and this is attested by the—

Original TexRope Drive insuring power transmission without slippage and without the constant care, maintenance expense and noise of Chain Drives, etc., operating at these high speeds.

Motor, Ball Bearing Equipped, Mounted Horizontally on a dove-tailed sliding base, is adjusted by means of hand wheel and feed screw. By this simple and effective means it is easy to secure proper belt tension and accurate alignment. This method of motor mounting was adopted in preference to using a three point hinged or tilting base.

Steel Wheel Guards insure maximum safety, and are built to conform to American Standards Association specifications. They are well supported both at top and sides and are extremely rigid; the mounting is as strong as the guard itself. They are provided with exhaust pipe connections, and are adjustable with the wear of the wheels.

Steel Spark Arrester is easily adjusted to the wear of the wheel.

Wheel Flanges of cast steel securely clamp the wheel by six large bolts and are firmly keyed to the spindle. This construction permits the removal of wheel and flange assembly as a complete unit for transferring to another machine, and provides utmost strength and safety.

Extra Large Spindle made of heat-treated chrome nickle steel is accurately machined and ground, insuring perfect balance.

Ball Bearings. Oversize high-grade ball bearings are provided on each end of the spindle. Timken Roller Bearings are optional without extra charge.

Labyrinth Seals prevent dust and dirt getting into bearings.

Lubrication Chambers are filled through conveniently located cups. Gauges insure that excess lubricant will escape through overflow. Drain plug permits quick flushing of bearings.

Tool Rests. Sturdy steel tool rests provide ample support. Are easily adjusted and quickly removed.

Bearing Boxes are keyed to top of column insuring perfect alignment permanently.

Motor Starter is in a steel cabinet and mounted inside the column. This arrangement affords a double protection against dirt, dust and grit. Push button station is conveniently mounted in the top front of column and fully protected thereby. Both are readily accessible through the large door.

Belts Removed or Replaced. The unit construction of spindle head assembly makes it possible to change the belts without pulling the spindle through the bearing housing or disturbing bearings.

Flex-Steel Conduit and Fittings meet all requirements of Underwriters.

See page 13 for description of the Multi-Speed Type.

"Hisey"

ELECTRIC DRILLS-GRINDERS-BUFFERS
THE HISEY-WOLF MACHINE CO. (Est. 1896) CINCINNATI, OHIO U.S.A.

"Hisey"

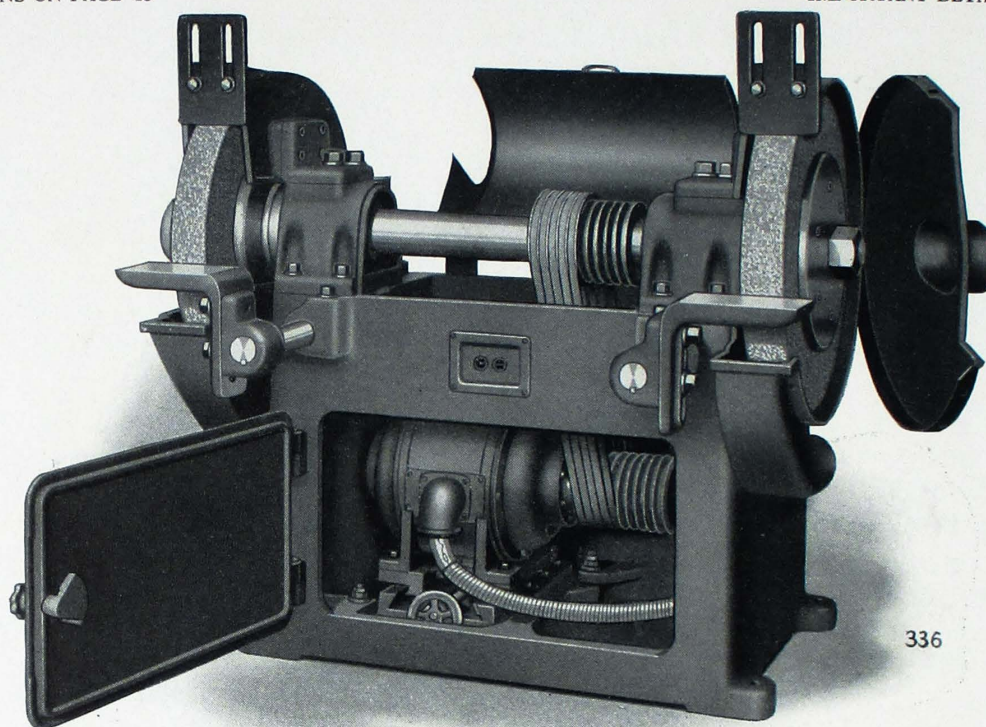
TexDrive SNAGGING GRINDERS

PATENTS PENDING

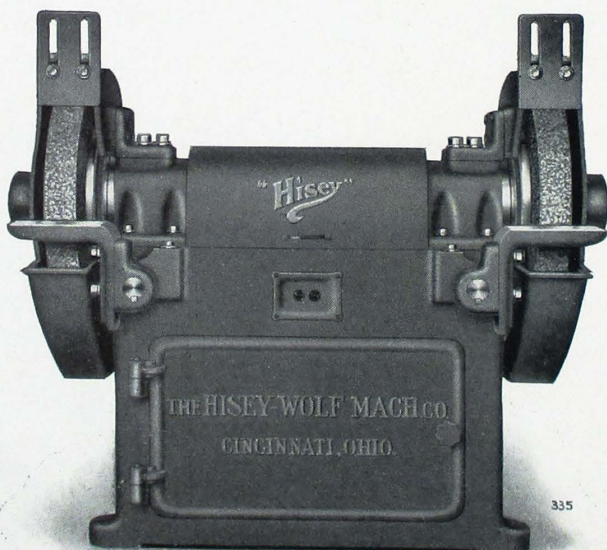
FOR **HIGH SPEED** and VITRIFIED WHEELS

SPECIFICATIONS ON PAGE 13

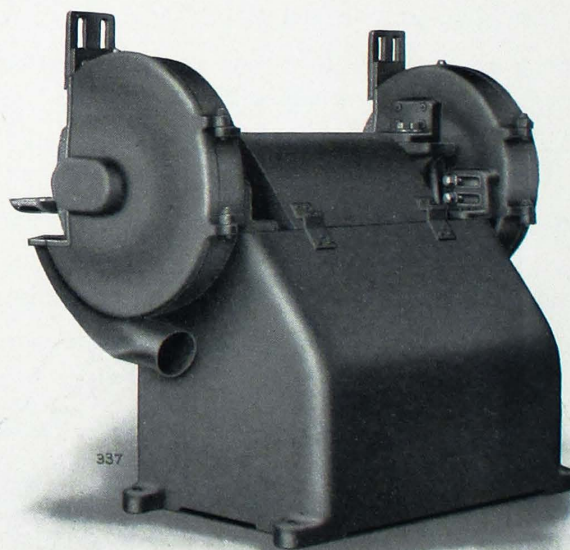
IMPORTANT DETAILS ON PAGE 11



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The front view at left shows the extremely rugged yet compact and convenient design of this machine. From the rear view at right, note how the grinding wheels themselves extend far in advance of the machine proper, lending themselves more readily to the grinding of large and irregular pieces — — — and affording the operator maximum freedom of operation. This view gives an idea of the exceptional strength of the wheel guards, their mounting and ease of adjustment.

Note accessibility and ease of reaching any part as is illustrated in the view of the Multi-Speed Grinder at top of page.

TexDrive SNAGGING GRINDERS

PATENTS PENDING

FOR **HIGH SPEED** and VITRIFIED WHEELS

IMPORTANT DETAILS ON PAGE 11

ILLUSTRATIONS ON PAGE 12

SPECIFICATIONS

SINGLE-SPEED GRINDERS

Type	Volts	Size of Wheel in Inches	H. P. of Motor	Spindle Speed R. P. M. No Load		Dimensions in Inches					Weight in Pounds		Boxed Dimensions in Inches
				For High Speed Wheels	For Vitrified Wheels	Diam. of Spindle between Bearings	Diam. of Spindle where Wheel goes on	Distance between Wheel Centers ‡	Height Bottom of Base to Center of Spindle	Size of Base at Bottom	Net	Gross	
7TW	220, 440 or 550 Volts for 50 or 60 cycles 2 or 3 phase. Always Specify.	18x3	5	2050	1300	3 5/8	2 1/4	45 1/2	34 1/2	28x44	2200	2470	44x57x64
8TW		20x3	7 1/2	1825	1160	3 5/8	2 1/4	45 1/2	34 1/2	28x44	2325	2600	44x57x64
10TW		24x3	10	1550	960	3 5/8	2 1/4	45 1/2	34 1/2	28x44	2430	2730	44x57x64
10TWS		30x3	10	1210	760	4	2 3/4	45 1/2	34 1/2	28x44	2500	2800	46x60x70
15TW		30x3	15	1210	760	4	2 3/4	45 1/2	34 1/2	28x44	2625	2950	46x60x70

MULTI-SPEED GRINDERS

8TTW	220, 440 or 550 Volts for 50 or 60 cycles 2 or 3 phase. Always Specify.	20x3	7 1/2	1825 and 2150	1160 and 1350	3 5/8	2 1/4	45 1/2	34 1/2	28x44	2420	2700	44x57x64
10TTW		24x3	10	1550 and 1850	960 and 1210	3 5/8	2 1/4	45 1/2	34 1/2	28x44	2525	2825	44x57x64

The above listed Spindle Speeds are standard and most suitable for the average wheel; however higher or lower speeds for any special make of wheel can be furnished without extra charge.

*Machines with motor specifications other than listed furnished to special order.

†Standard equipment includes steel wheel flanges for 12-inch hole wheels. Grinding wheels not included.

‡Steel Wheel Flanges for 10-inch hole grinding wheels furnished to order at standard price.

Steel Wheel Flanges for 18-inch hole grinding wheels furnished to order at fifty dollars extra.

‡With extra wide wheel spacing of 55 inches between wheel centers, seventy-five dollars extra.

There are two methods of maintaining the most efficient speed in general practice, which are, (1) The HISEY Multi-Speed Grinder, (2) The HISEY System of Wheel Transfer, both of which are fully described below.

THE HISEY MULTI-SPEED GRINDER

equipped with 10 H. P. Motor is designed for 24-inch wheels. When the wheels are worn to 21 inches (at this size, they approach the low point of the efficient speed range) the belts are changed to the high speed pulleys. At this higher speed, the wheels again operate at the high point of the efficient speed range and are worn down to the clamping flanges — — — having operated at their most efficient as well as economical speed throughout their entire life.

A patented Safety Device operating in harmony with the wheel guards prevents over-speeding the wheels. Belts cannot be changed to the high speed pulleys until both wheels have been worn to the proper diameter. This device operates in conjunction with the wheel guards rather than the Spark Arrestor or Tool Rest, which detachable members can be easily removed or knocked off, thereby destroying the safety feature.

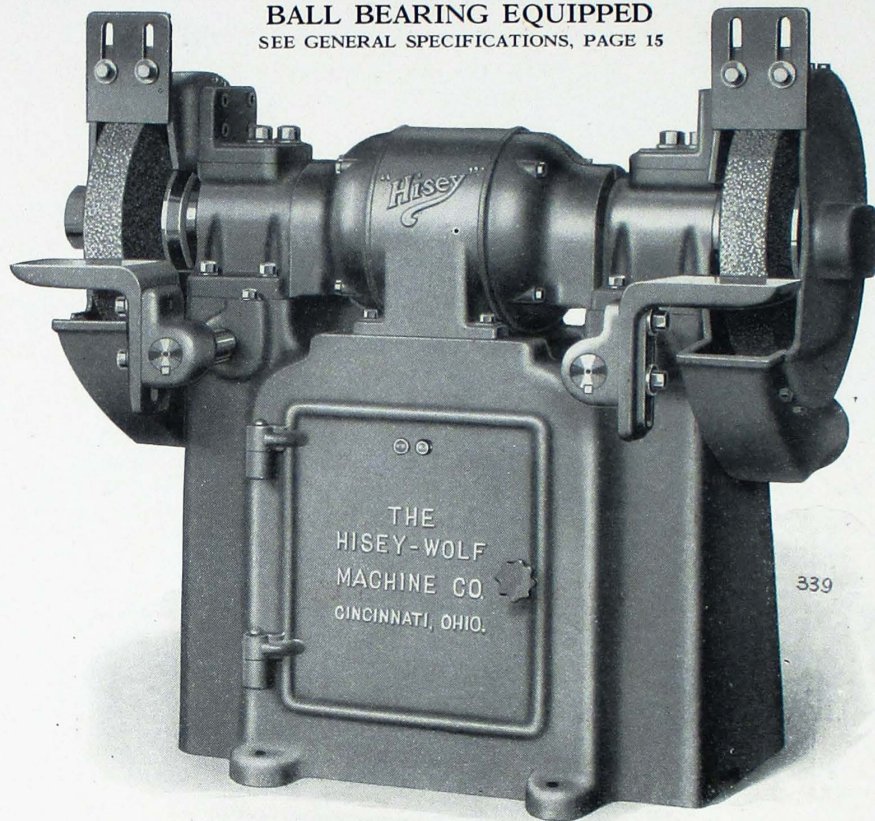
THE HISEY SYSTEM OF WHEEL TRANSFER

This system is used where a number of machines is required. The plan, as the name suggests, is to transfer the wheel when worn to a certain diameter, to a second grinder "equipped with a smaller motor" operating at a higher speed, thus affording the efficient surface speed for the worn wheel. In this same manner 30-inch wheels can be transferred for a third time to machines equipped with smaller motors proportionately. When Grinders are used in banks of two or more, each wheel guard is fitted with a marker which indicates when the wheel is worn to a size ready for the next transfer. In this way, not only is an efficient speed maintained constantly throughout the entire life of the wheel, but a worthwhile power saving is also effected.

Belts. TexRope Belts for all grinders described above are of the same size and interchangeable.

5, 7½ and 10 H. P. HEAVY DUTY FLOOR GRINDERS

BALL BEARING EQUIPPED
 SEE GENERAL SPECIFICATIONS, PAGE 15



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Accessories on Pages 15, 20 and 21

Grinding Wheels supplied to order only

60 CYCLE ALTERNATING CURRENT—CONTINUOUS DUTY (40° C.) H. P. RATING

Code Word	Type	Volts	Size of Wheels in Inches	Speed R. P. M. No Load	H. P.	Diam. of Spindle where Wheels go on Inches	Distance between Wheel Centers in Inches *	Size of Base at Bottom in Inches	Height Bottom of Base to Center of Spindle in Inches	Weight in Pounds		Boxed Dimensions in Inches
										Net	Gross	
XACEF	7WFA	220, 440 or 550 Volts for 50 or 60 cycles, 2 or 3 Phase. Always Specify.	18x3	1140	5	1½	43	24x35½	34½	1650	1850	32x50x58
XADFG	7WFAL		20x4	900	5	1½	44	24x35½	34½	1800	2000	35x52x62
XAEGH	7WFAS		20x4	1140	5	1½	44	24x35½	34½	1750	1950	35x52x62
XAFAHK	8WFA		20x4	1140	7½	1¾	44	24x35½	34½	1900	2100	35x52x62
XAGKL	8WFAL		20x4	900	7½	1¾	44	24x35½	34½	2000	2200	35x52x62
XAHLM	8WFAS		24x4	900	7½	1¾	44	24x35½	34½	2100	2300	35x52x62
XAKMO	10WFA		24x4	900	10	2¼	44	24x35½	34½	2200	2400	37x54x64

Above machines can be furnished to special order at 10 per cent extra as follows:

For any voltage up to 550 volts.

5 and 7½ H. P. machines for 25 cycles at speed 1425 R. P. M. and recommended for 16-inch wheels.

10 H. P. grinder for 25 cycles at speed of 750 R. P. M.

*With extra wide wheel spacing of 55 inches between wheel centers, seventy-five dollars extra.

NOTE: All of the above machines can be furnished at speed of 1800 R. P. M. for use with high speed grinding wheels not larger than 20-inch diameter at 15 per cent extra.

The above 10 H. P. Alternating Current Grinder can be furnished at speed 1140 R. P. M. for use with 30-inch high speed grinding wheels at 15 per cent extra

DIRECT CURRENT—CONTINUOUS DUTY (40° C.) H. P. RATING

WOEVW	7WFD	230	18x3	1200	5	1½	43	24x35½	34½	1750	1950	32x50x58
WOEWX	8WFD	230	20x4	1100	7½	1¾	44	24x35½	34½	2000	2200	35x52x62
WOEXY	10WFD	230	24x4	900	10	2¼	44	24x35½	34½	2300	2500	37x54x64

The above Direct Current Grinders can be furnished for special higher voltages from 110 to 550 volts at 10 per cent extra. For protection against field failure the above Direct Current Grinders are equipped with a Shunt Field Protective Relay.

GENERAL SPECIFICATIONS OF

5, 7½ and 10 H. P. HEAVY DUTY FLOOR GRINDERS

Illustrated on Page 14

Steel Wheel Guards are adjustable and provided with exhaust pipe connections. They can be changed in position to conform with the wear of the wheels. Built to conform to specifications recommended by the American Standards Association. They are well supported at top and sides, and are extremely rigid. Special attention has been paid to the mounting of these guards (the mounting being as rigid and as strong as the guard itself). The guard door is hinged for easy change of wheels.

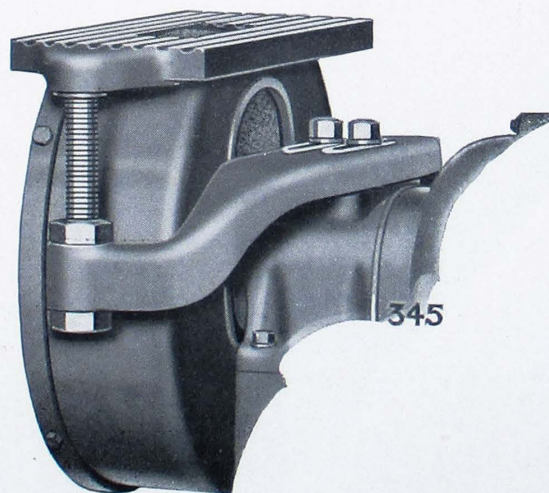
OTHER FEATURES ARE:

- Bearing box mounting.
- Method of lubrication.
- Labyrinth seal for bearings.
- Heavy tool grinding rests.
- Adjustable chip breakers.
- Large wheel flanges.
- Starter in base accessible through large door.
- Flex-Steel Conduit and Fittings meet all requirements of Underwriters.
- Extra large bearings, spindle, etc., are described on page 11.
- Timken Roller Bearings supplied at standard price.

SURFACE GRINDING ATTACHMENT

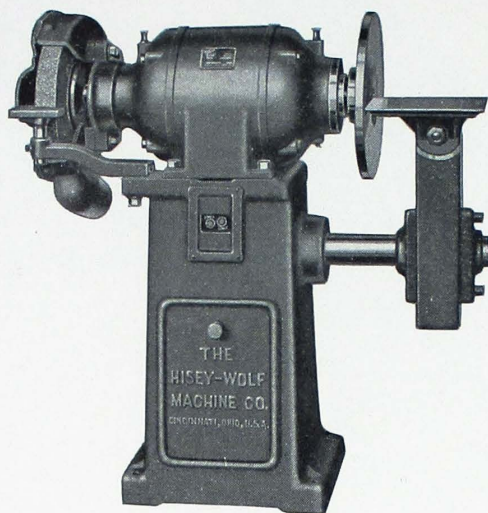
Can be supplied to special order for all Grinders with standard wheel spacing as listed on pages 13 and 14.

Is interchangeable with wheel guard and can be mounted on either right or left side of machine. The table is adjusted to wear of wheel through two husky Square Thread Screws rigidly locked in place by means of two opposed nuts. The guard cover is readily removable for replacement of wheel. Both the guard and cover are constructed of steel. The rugged table, 10 x 21 inches, is self cleaning and of generous proportions.

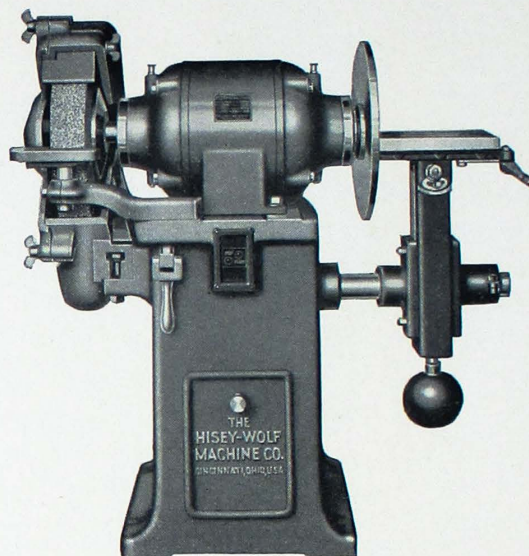


COMBINATION DISC and FLOOR STAND GRINDERS

SEE IMPORTANT DETAILS, PAGE 2



2½ and 3½ H. P. GRINDERS
 Showing Plain Work Table



5 and 7½ H. P. GRINDERS
 Showing Universal Lever Feed Table

Bearings. Two high grade annular Ball Bearings are mounted to take radial load only. A double-acting, self-aligning, thrust bearing is provided to take all end thrust.

Spindle is made of special alloy steel and of extra heavy construction throughout.

Accessories on pages 20 and 21.

Standard Equipment. One Combination Exhaust Wheel Guard as shown. Steel Disc and Plain Work Table of size as listed. Safety Motor Starter and approved Condulet Connector.

60 CYCLE ALTERNATING CURRENT—CONTINUOUS DUTY (40° C.) H. P. RATING

Code Word	Type	Volts	Size of Wheels in Inches		Speed R.P.M. No Load	H. P.	Plain Table Size in Inches	Dimensions in Inches				Weight in Pounds		Boxed Dimensions in Inches
			Disc	Grind.				Diam. Grinding Wheel Arbor	Spindle Length Over All	Size of Base at Bottom	Height Bottom of Base to Center of Spindle	Net	Gross	
WOVBG	5DCA	220 V., 3 Ph.	15	14x2	1725	2½	8¼x9½	1¼	30	16x18½	36	725	825	24x48x50
WOVCH	5DCA	440 V., 3 Ph.					*							
WOSSW	6DCA	220 V., 3 Ph.	18	14x3	1725	3½	8¼x9½	1¼	31	16x18½	36	800	900	24x48x50
WOSTX	6DCA	440 V., 3 Ph.					*							
WOTEG	7DCA	220 V., 3 Ph.	20	18x3	1140	5	9½x10½	1½	33	20x21	36	1300	1500	29x51x54
WOTFH	7DCA	440 V., 3 Ph.					†							
WXJLO	8DCA	220 V., 3 Ph.	20	18x3	1140	7½	9½x10½	1½	35	20x21	36	1400	1600	30x52x55
WXMPS	8DCA	440 V., 3 Ph.					†							

The above machines furnished to order for two-phase service; also for 50 cycles (speed 1425 R. P. M.) without extra charge. 16-inch wheel recommended for 5 and 7½ H. P.

Furnished for following at 10 per cent extra:

For 40 cycle service at speed of 1125 R. P. M.

For 25 cycle service at speed of 1425 R. P. M.

For special voltage from 110 to 550 volts.

2½ and 3½ H. P. machines for single phase with Repulsion Induction Motors up to 250 volts.

DIRECT CURRENT—CONTINUOUS DUTY (40° C.) H. P. RATING

WOVDJ	5DCD	115	15	14x2	1725	2½	8¼x9½	1¼	30	16x18½	36	725	825	24x48x50
WOVEK	5DCD	230					*							
WOSUZ	6DCD	115	18	14x3	1725	3½	8¼x9½	1¼	31	16x18½	36	800	900	24x48x50
WOTAB	6DCD	230					*							

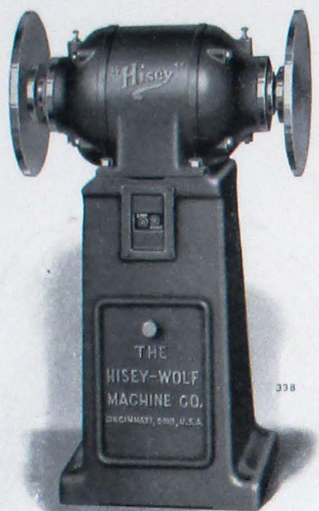
These Direct Current machines can be supplied for special voltage up to 250 volts, at 10 per cent extra.

*Furnished with Universal Lever Feed Table (shown at right) 6½x13 inches, 20 per cent extra.

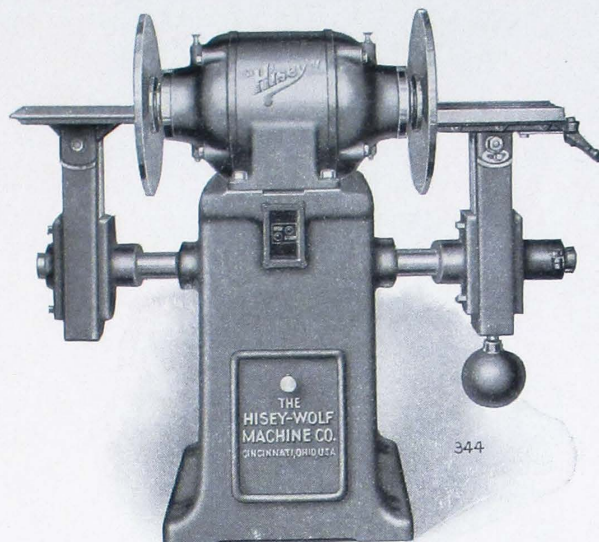
†Furnished with Universal Lever Feed Table (shown at right) 8x14½ inches, 20 per cent extra.

DOUBLE END DISC GRINDERS

SEE IMPORTANT DETAILS, PAGE 2



2 1/2 and 3 1/2 H. P. DISC GRINDERS



5 and 7 1/2 H. P. DISC GRINDERS

Bearings. Two high grade annular Ball Bearings are mounted to take radial load only. A double-acting, self-aligning, thrust bearing is provided to take all end thrust.

Standard Equipment. Safety Motor Starter, Disc Wheels and Work Tables as listed.

60 CYCLE ALTERNATING CURRENT—CONTINUOUS DUTY (40° C.) H. P. RATING

Code Word	Type	Volts	Diam. of Disc Wheels in Inches	Speed R. P. M. No Load	H. P.	Dimensions in Inches				Weight in Pounds		Boxed Dimensions in Inches
						Work Tables	Spindle Length Over All	Size of Base at Bottom	Height Bottom of Base to Center of Spindle	Net	Gross	
WKDCF WKEDG	5DA 5DA	220 V., 3 Ph. 440 V., 3 Ph.	15	1725	2 1/2	None ‡	27	16x18 1/2	36	625	725	24x40x50
WKFEH WKGfJ	6DA 6DA	220 V., 3 Ph. 440 V., 3 Ph.	18	1725	3 1/2	None ‡	28	16x18 1/2	36	700	800	24x40x50
WKHGK WKJHL	7DA 7DA	220 V., 3 Ph. 440 V., 3 Ph.	20	1140	5	Plain 9 1/2 x 10 1/2 Universal 8 x 14 1/2 *	29	20x21	36	1200	1400	29x45x58
WKKJO WKLKQ	8DA 8DA	220 V., 3 Ph. 440 V., 3 Ph.	20	1140	7 1/2	Plain 9 1/2 x 10 1/2 Universal 8 x 14 1/2 *	31	20x21	36	1300	1500	29x45x58

The above machines furnished to order with special motors the same as machines listed on page 16.

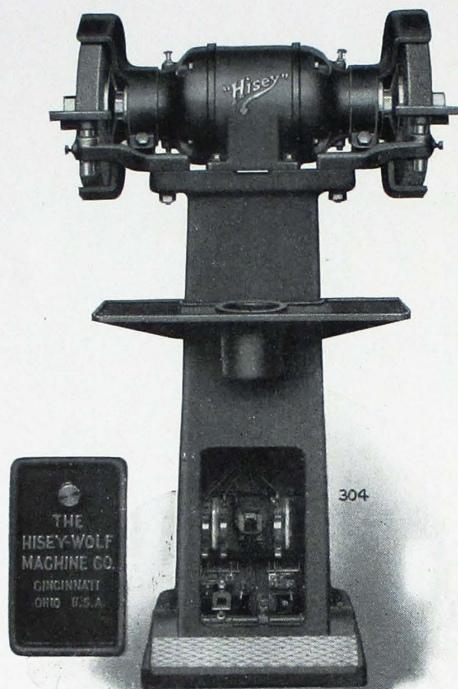
DIRECT CURRENT—CONTINUOUS DUTY (40° C.) H. P. RATING

WKMLR WKOMS	5DD 5DD	115 230	15	1725	2 1/2	None ‡	27	16x18 1/2	36	625	725	24x40x50
WKQOT WKRQU	6DD 6DD	115 230	18	1725	3 1/2	None ‡	28	16x18 1/2	36	700	800	24x40x50

‡Furnished with two Plain Work Tables 8 1/4 x 9 1/2 inches at 25 per cent extra.
with one Plain Table 8 1/4 x 9 1/2 inches and one Universal Table 6 1/2 x 13 inches at 50 per cent extra.
with two Universal Tables 6 1/2 x 13 inches at 70 per cent extra.

*Furnished with two Disc Wheels as listed and without Work Tables at 30 per cent less than standard list.
with two Plain Tables 9 1/2 x 10 1/2 inches as listed at 15 per cent less than standard list.
with two Universal Tables 8 x 14 1/2 inches as listed at 15 per cent more than standard list.

FOOT TREADLE SWITCH



The HISEY Foot Treadle Switch is absolutely "Forget Proof"—the moment the operator leaves the machine the current is automatically shut off, eliminating current waste and saving much time when the nature of the work requires frequent starting and stopping.

The Treadle extending the entire width of the column allows simultaneous operation by two workmen without hindering or interfering with each other as is the case with the small "single pedal" switch.

Besides affording many conveniences this switch retains all the safety and automatic features of Push Button Control.

HISEY Foot Treadle Switch can be furnished to order for the following FLOOR STAND machines:

Grinders, as listed on pages 7, 8 and 9.

Combination Grinders and Buffers, on page 23.

Buffers as listed on pages 27, 28, 29 and 30.

AUTOMATIC GRINDER LIGHTS

WHERE THEY'RE WANTED—WHEN THEY'RE WANTED

HISEY Automatic Grinder Lights burn only while the Grinder is being used. They are "on" or "off" automatically with the "on" and "off" of the motor control switch. Forgetting to turn off the light is impossible—current is saved—still the light is where it's wanted, when it's wanted.

The lights are an ever evident indication of whether current is on or off (HISEY Ball Bearing Grinders rotate a long time after the current is shut off).

The Flexible Metal Holders permit instant adjustment to any desired position.

HISEY Automatic Lights can be furnished to order with Foot Treadle Switch Control for FLOOR TYPE MACHINES as follows:

Grinders, as listed on pages 7, 8 and 9.

Combination Grinders and Buffers, on page 23.

Buffers, as listed on pages 27, 28, 29 and 30.

With standard Push Button Switch for BENCH and FLOOR MACHINES as follows:

Grinders, as listed on pages 6, 7, 8 and 9.

Combination Grinders and Buffers, on 22 and 23.

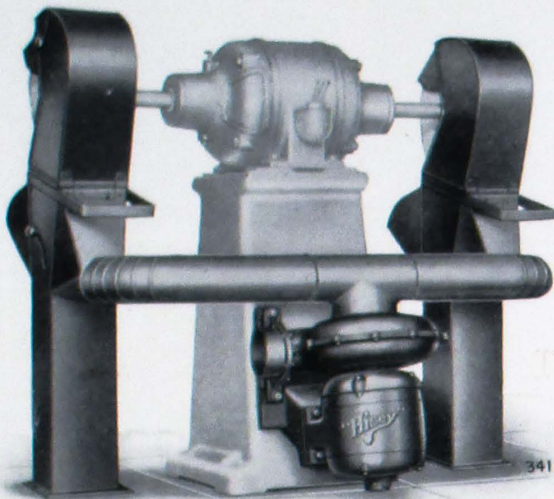
Buffers, as listed on pages 26, 27, 28, 29 and 30.



EXHAUSTER EQUIPMENT

BALL BEARING EQUIPPED

A motor driven Exhaust Blower mounted integral with the machine, as shown below, can be furnished to order. The same automatic motor starter simultaneously controls both motor units.

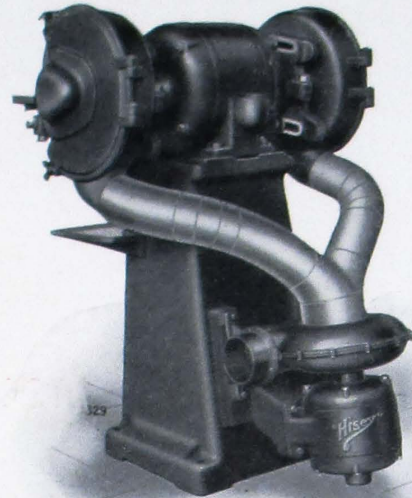


Supplied with

BUFFING and POLISHING MACHINES

For all sizes from $\frac{1}{2}$ to 5 H. P. inclusive, per pages 27, 28, 29 and 30. Exhauster Equipment also includes Dust Collecting Hoods as shown.

Motor specifications other than listed standards for the various machines for which this equipment is recommended—10 per cent extra.



Supplied with

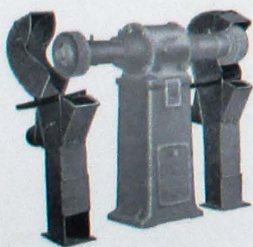
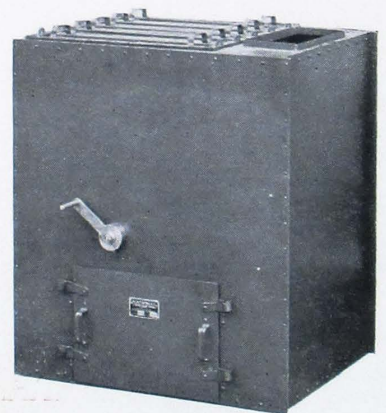
FLOOR STAND GRINDERS

For 10, 12 and 14-inch wheel capacity, per pages 7, 8 and 9. Exhauster Equipment also includes Combination Exhaust Guards as shown.

FILTER EQUIPMENT

Filter Cabinet (as shown to the right), when used in connection with motor driven exhauster described above, is particularly adapted for individual installations. This unit, though small and compact, effectively collects grit and dust and when mounted close up to the exhauster requires but little space.

Can be supplied with any of the above Exhauster Equipment.



DUST COLLECTING HOODS

as shown at the left can be furnished to order for all sizes of Floor Stand Buffing and Polishing Machines (direct motor drive and TexDrive) described in the catalog.

COMBINATION EXHAUST GUARDS TYPE-A

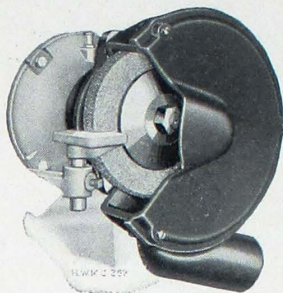
This type of Safety Guard is adjustable (moved back) to the wear of the wheel thereby affording full access to the grinding wheel with maximum protection at all times.

These HISEY Combination Wheel Guards are fitted with hinged doors for quick access to grinding wheels; have standard exhaust pipe connections, and are of dimensions and specifications as recommended by the American Standards Association.

They are standard equipment on all grinding machines of $2\frac{1}{2}$ H. P. capacity and larger, however, can be furnished to order for all other sizes except $\frac{1}{4}$ H. P. Grinders.

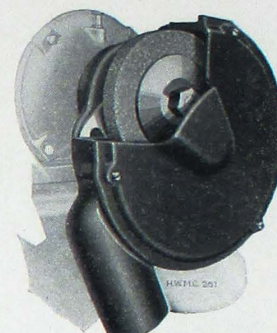
Being interchangeable with the open end guards replacements can be made economically and without delay.

PATENTED AUG. 9, 1927. No. 1,638,459.

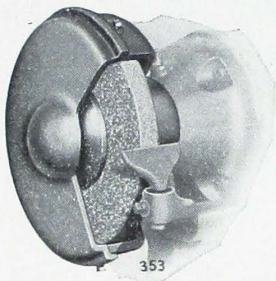


End view showing guard protection after a 10-inch diameter wheel has worn to 5 inches.

Note that top of the guard is always nearest the wheel to serve as a spark and chip breaker.



End view showing angular adjustment of combination guard.



ENCLOSED WHEEL GUARDS TYPE-B

Furnished to order for all Grinders as shown and described on pages 4 to 7 inclusive.

This universal Guard pivoted on the end head can be adjusted to any angle. End cover plate can be quickly removed for access to grinding wheel.

EYE SHIELDS

Unlike the workman's goggles, the eye shield is always in position ready for use and provides maximum protection from flying sparks and chips.

For Bench and Floor Type Grinding and Buffing machines, eye shields are furnished in sets of two and are supplied complete with the necessary mounting brackets.

The heavy laminated glass plates commonly known as bullet-proof glass, will not shatter or splash when broken by an unusually hard blow.

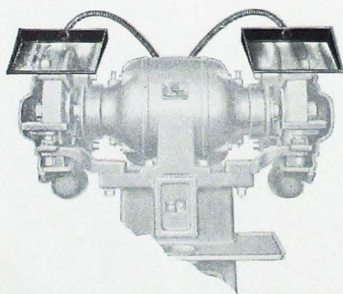
This clear glass should not be confused with the built-in type of wired glass which obstructs the operator's view and tends to diffuse the light.

FLEXIBLE TYPE

Shown to the left.

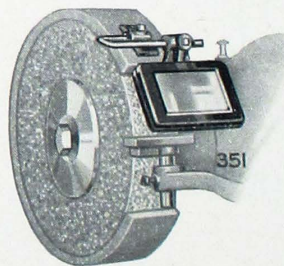
The glass is 9 x 7 inches and is held in a steel frame which can be detached when renewal is necessary.

The special flexible metal holder supporting the shield can be instantly adjusted by hand (without tools) to any desired position.



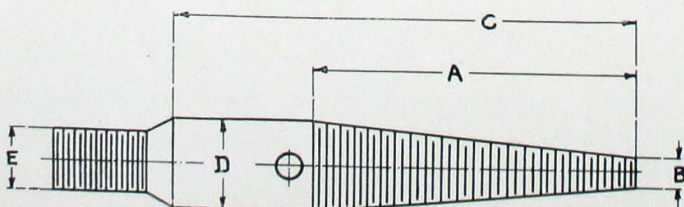
HINGED TYPE

Is fitted with shield $3\frac{1}{2} \times 5\frac{1}{2}$ inches held in a steel frame. In addition to the hinge movement the shield can be adjusted to the right and left of the wheel.



TAPERED EXTENSION SPINDLES

Are made for all Buffing and Polishing Machines of 2 H. P. capacity and larger.



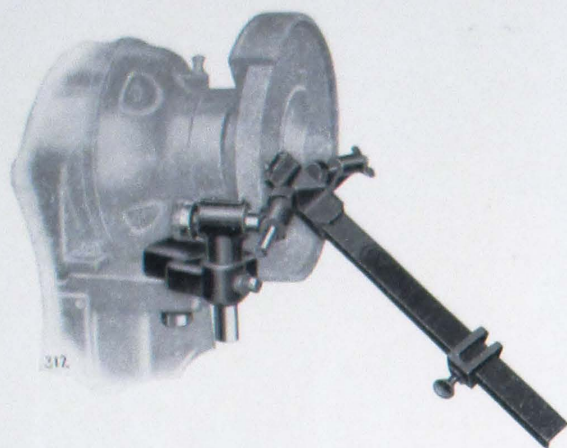
Dimensions in Inches

Size	A	B	C	D	E
For machines with 1-inch diameter wheel arbor ends.....	$3\frac{1}{4}$	$\frac{5}{16}$	$4\frac{5}{8}$	1	$\frac{3}{16}$
For machines with $1\frac{1}{4}$ -inch and larger wheel arbor ends.....	$3\frac{1}{4}$	$\frac{5}{16}$	$4\frac{5}{8}$	1	$\frac{5}{8}$

For Special Tapered Extension Spindles double price of standard parts.

They are usually furnished in sets of two but can be furnished singly when so desired. In ordering give FULL NAME PLATE markings of the machine for which taper extension spindles are required.

TWIST DRILL GRINDING ATTACHMENT



It is a complete, self-contained unit doubling the utility of the HISEY Grinder on which it is used as it affords the dual advantages of two distinct machines.

The complete unit is interchangeable with the standard Tool Grinding Rest and can be quickly mounted in position.

This attachment not only will grind twist drills more accurately but also faster than the old and obsolete free hand method. It eliminates the use of gauges as a graduated micrometer screw adjustment insures identical lip lengths.

A 60 grit Grinding Wheel of medium grade is recommended and should be dressed frequently so as to retain a straight face.

It will grind any straight or taper shank twist drills from $\frac{1}{4}$ to $1\frac{1}{4}$ -inch diameter inclusive.

Supplied for all Grinders listed on pages 4, 5, 6 and 7. For use on right-hand side only. When ordered separately (without grinding machine) give full name-plate markings.

GRINDING WHEEL DRESSERS

No. 19. This is attached to the tool rest of the grinding machine and cutters adjusted for depth of cut desired by means of the screw feed in the rear.

When set, cutters are fed across the face of wheel, drawn back and forth by means of the end handles.

This produces a free cutting straight face resulting in maximum grinding efficiency and reduces vibration to a minimum thereby materially lengthening life of bearings.

Cutters can quickly be changed when necessary.

In ordering for HISEY Grinder give full name plate markings, otherwise give diameter of shank desired.

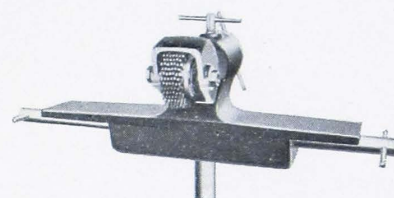
Type DH Hand Dressers are made in three sizes:

No. 20 has $1\frac{1}{8}$ inch diam. cutters and recommended for small wheels.

No. 21 has $1\frac{1}{2}$ inch diam. cutters and best for medium size wheels.

No. 22 has $2\frac{3}{8}$ inch diam. cutters and most suitable for large wheels.

No. 23 Diamo Carbo Wheel Dresser for small and medium size wheels will produce an even and free cutting surface. The cutting abrasive is adjustable and renewable.



No. 19



Nos. 20-21-22



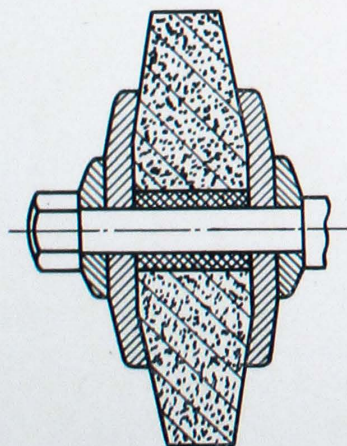
No. 23

SAFETY TAPER FLANGES

For Double Taper Grinding Wheels

Standard taper is $\frac{3}{4}$ -inch per foot (on each side). Flanges with $\frac{1}{2}$ -inch taper at same price when specified.

They can be furnished for all Grinders having 10-inch diameter wheels and larger. For 14-inch wheels and larger Safety Taper Flange Equipment includes Re-enforcing Flanges as shown in cut. As the hub thickness of double taper grinding wheels varies with the face (width of the wheel on the periphery) the wheel guards vary in almost the same proportion.



DIMENSIONS IN INCHES

H. P. of Grinder	Diameter of Grinding Wheels	Diameter of Taper Flanges	Maximum Face of Wheel (Width at Periphery) with Open End, En- closed or Combination Exhaust Guards	
			Using STANDARD Width Guards	Using SPECIAL Width Guards
1	10	6	$\frac{1}{2}$	1
2	12	8	1	$1\frac{1}{2}$
$2\frac{1}{2}$	14	10	1	2
$3\frac{1}{2}$	14	10	$1\frac{1}{2}$	3
5	18	14	2	3
$7\frac{1}{2}$	20	16	$2\frac{1}{2}$	4
10	24	20	$2\frac{1}{2}$	4

COMBINATION GRINDERS and BUFFERS

WITH OPEN TYPE SPINDLE EXTENSION

BALL BEARING EQUIPPED

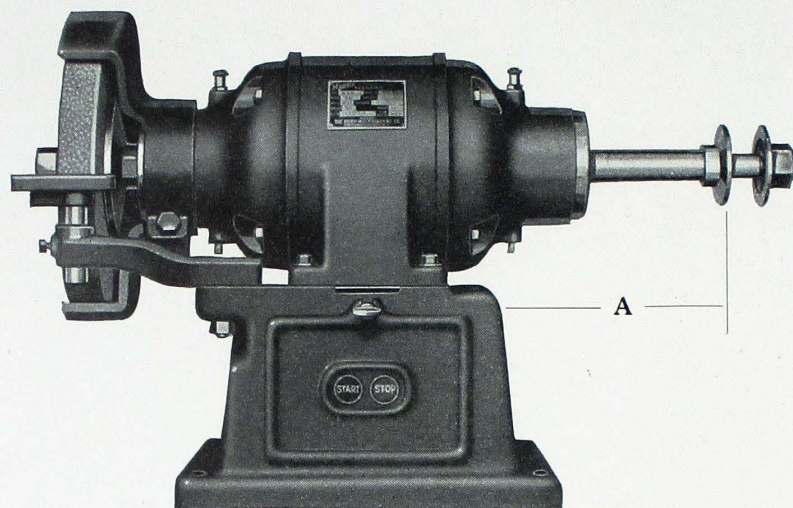
SEE IMPORTANT DETAILS, PAGE 2

CAN BE SUPPLIED WITH
FLOOR STAND MOUNTING
TO SPECIAL ORDER

Adapted for a large variety of work requiring the use of a grinding wheel, buff wheel, wire brush wheel or rotary wire rasp wheel. The practical and well-balanced outline of these machines add to the usefulness of the many combinations of operations for which they are designed.

Enclosed Wheel Guard Type B shown on page 20 can be furnished to order for left end.

Accessories shown on pages 20 and 21.



60 CYCLE ALTERNATING CURRENT—CONTINUOUS DUTY (40° C.) H. P. RATING

Code Word	Type	Volts	Size of Wheels in Inches		Speed R.P.M. No Load	H. P.	Diameter Wheel Arbor in Inches	Spindle Length A in Inches	Height Base to Spindle in Inches	Weight in Pounds		Standard Equipment
			Grind.	Buff.						Net	Gross	
WEABE WECDF WEOEG	1CBOA 1CBOA 1CBOA	110 V., 1 Ph. 220 V., 1 Ph. 220 V., 3 Ph.	6x1½	5x1½	3500	¼	½	2	7¾	55	85	Grinding Wheel. Wheel Guard. Approved Connector. Motor Starter
WEPFH WERGK WESHL WETKO	2CBOA 2CBOA 2CBOA 2CBOA	110 V., 1 Ph. 220 V., 1 Ph. 220 V., 3 Ph. 440 V., 3 Ph.	8x¾ or 7x¾*	6x¾	3425	½	⅝	5⅜	9½	95	140	
WOIGK WOIHL WOIJM WOTOS	3CBOA 3CBOA 3CBOA 3CBOA	110 V., 1 Ph. 220 V., 1 Ph. 220 V., 3 Ph. 440 V., 3 Ph.	10x1 †	8x1	1725	1	¾	8½	12½	220	300	Grinding Wheel. Wheel Guard. Motor Starter. Condulet Connector.
WOIKN WOILO WOIMP WOTPT	4CBOA 4CBOA 4CBOA 4CBOA	110 V., 1 Ph. 220 V., 1 Ph. 220 V., 3 Ph. 440 V., 3 Ph.	12x1½ ‡	11x1½	1725	2	1	10	13¼	260	360	

Standard voltage for 50 cycles at speed of 2825 R. P. M. at no extra charge.

Special motor specifications for above machines can be furnished at 10 per cent extra as follows:

Type 1CBOA—For single, two or three phase service for voltage from 80 to 250 volts.

Types 2CBOA, 3CBOA and 4CBOA—For single phase for voltage from 80 to 275 volts. For two and three phase for voltage from 80 to 550 volts, 220 and 440 volts at standard price. For lower frequency as follows: 40 cycles at 2225 R. P. M., 25 cycles at 1425 R. P. M.

DIRECT CURRENT—CONTINUOUS DUTY (40° C.) H. P. RATING

WEULP WEWOR	1CBOD 1CBOD	115 230	6x1½	5x1½	3600	¼	½	2	7¾	55	85	Grinding Wheel. Wheel Guard. Approved Connector. Motor Starter
WEYRT WEZSU	2CBOD 2CBOD	115 230	8x¾ or 7x¾*	6x¾	3600	½	⅝	5⅜	9½	95	140	
WOINQ WOIPR	3CBOD 3CBOD	115 230	10x1 †	8x1	2000	1	¾	8½	12½	220	300	Grinding Wheel. Wheel Guard. Motor Starter. Condulet Connector.
WOIRS WOIST	4CBOD 4CBOD	115 230	12x1½ ‡	11x1½	1800	2	1	10	13¼	260	360	

Direct Current Machines can be furnished at 10 per cent extra for special voltage as follows:

¼ and ½ H. P. sizes for voltage from 32 to 250 volts.

1 and 2 H. P. sizes for voltage from 80 to 250 volts.

*Seven-inch wheel is standard equipment. Eight-inch wheel furnished to order without extra charge.

†Furnished to order with 10x1½ inch grinding wheel and guard at standard price.

‡Furnished to order with 12x2 inch grinding wheel and guard at standard price.

**1 and 2 H. P.
COMBINATION
GRINDERS and
BUFFERS**



**WITH ENCASED TYPE
SPINDLE EXTENSION**

BALL BEARING EQUIPPED

*These machines can be furnished
for the same special motor specifica-
tions as listed on page 22.*

Foot Treadle Switch
shown on page 18, fur-
nished to special order.

Dust Collecting Hoods
shown on page 19 fur-
nished to order.

Enclosed Wheel Guard
Type B shown on page 20
can be furnished to order
for left end.

Accessories shown on
pages 20 and 21.

SEE IMPORTANT DETAILS, PAGE 2

CAN BE SUPPLIED WITH BENCH BASE MOUNTING TO SPECIAL ORDER

60 CYCLE ALTERNATING CURRENT—CONTINUOUS DUTY (40° C.) H. P. RATING

Code Word	Type	Volts	Size of Wheels in Inches		Speed R.P.M. No Load	H. P.	Diam. Wheel Arbor in Inches	Dist'nce between Wheel Centers in Inches	Spindle Length A in Inches	Height Base to Spindle in Inches	Weight in Pounds		Equipment
			Grind.	Buff.							Net	Gross	
WOTRU WOTSV WOTTW WOTUZ	3CEA 3CEA 3CEA 3CEA	110 V., 1 Ph. 220 V., 1 Ph. 220 V., 3 Ph. 440 V., 3 Ph.	10x1 ◇	8x1	1725	1	3/4	28	12 1/4	38	380	490	Grinding Wheel. Wheel Guard. Motor Starter. Condulet Connector.
WOHUZ WOIBF WOICG WOUBE	4CEA 4CEA 4CEA 4CEA	110 V., 1 Ph. 220 V., 1 Ph. 220 V., 3 Ph. 440 V., 3 Ph.	12x1 1/2 ‡	11x1 1/2	1725	2	1	28 1/2	12 1/2	38	440	590	Grinding Wheel. Wheel Guard. Motor Starter. Condulet Connector.

DIRECT CURRENT—CONTINUOUS DUTY (40° C.) H. P. RATING

WOUCF WOUDG	3CED 3CED	115 230	10x1 ◇	8x1	2000	1	3/4	28	12 1/4	38	380	490	Grinding Wheel. Wheel Guard. Motor Starter. Condulet Connector
WOIDH WOIFJ	4CED 4CED	115 230	12x1 1/2 ‡	11x1 1/2	1800	2	1	28 1/2	12 1/2	38	440	590	

◇Furnished to order with 10x1 1/2 inch grinding wheel and guard at standard price.
‡Furnished to order with 12x2 inch grinding wheel and guard at standard price.

ELECTRIC BUFFING and POLISHING MACHINES

WEIGHT SCIENTIFICALLY DISTRIBUTED—Not Mere Bulk

The Motor, enclosed and dust proof, is guaranteed to develop the name-plate horsepower rating for continuous service with a temperature rise not to exceed 40° C. HISEY Buffing and Polishing Machine Motors are designed in accordance with the A. I. E. E. standards and are liberally proportioned to withstand the heavy momentary overloads (from 75 to 100 percent above name-plate rating) so common in all buffing and polishing operations.

Single Phase alternating current machines are equipped with Improved Commutating Type Repulsion Induction Motors, which unlike the old Split Phase Motor have no dragging centrifugal switch. They will start and pick up speed instantly under any load within twice their rated capacity. Starting current under all conditions is unusually low, being less than one-third the current consumption of Split Phase Motors. Low voltage so often encountered, due to line drop and other existing conditions which cannot always be overcome, is the cause of much trouble in Split Phase Motors.

Low voltage has no objectionable effect on these new HISEY Single Phase Machines.

Two and Three Phase alternating current machines are equipped with motors of squirrel cage design. They are ruggedly built with a liberal factor of safety, and reserve power. Buffers and Polishers for 60 cycle service are standard and usually carried in stock, however, most machines can be supplied to special order for 25, 40 and 50 cycles as listed under each size and type.

Direct Current machines are equipped with compound wound motors designed especially for the service. They have large box type brush holders and oversize commutators with liberal brush area affording long life.

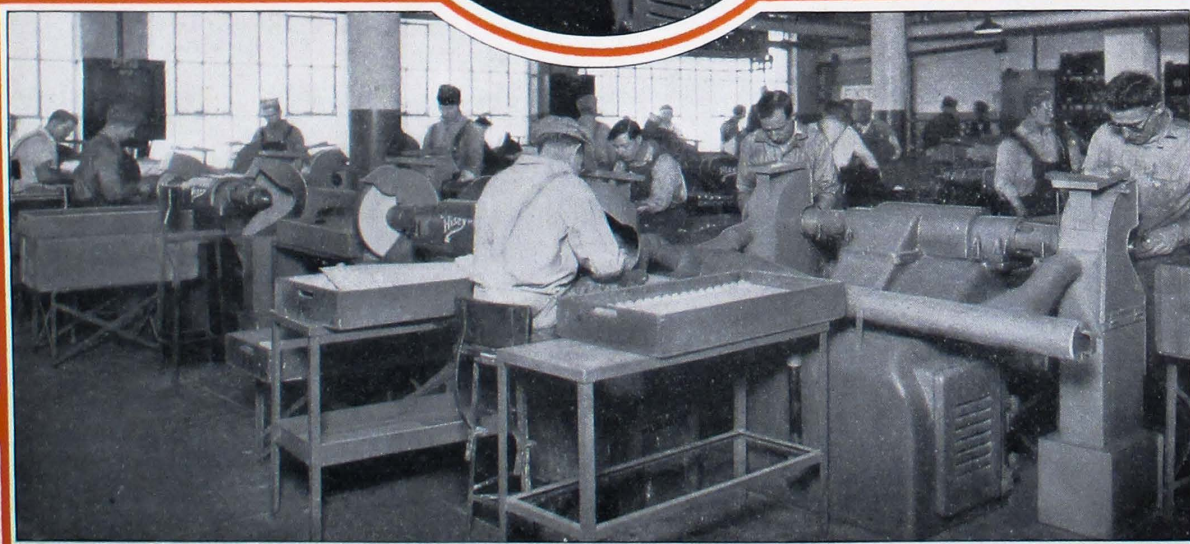
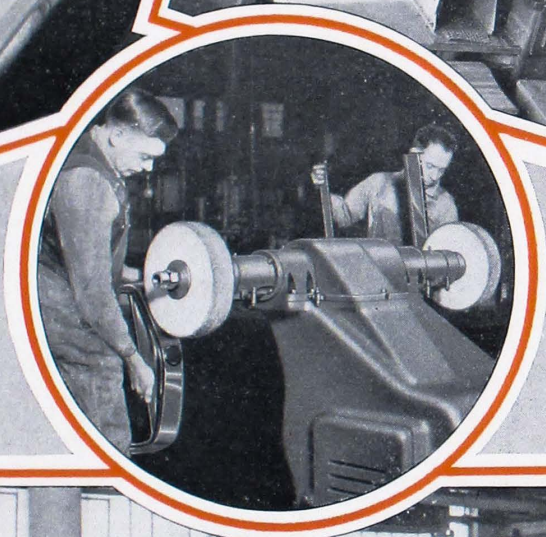
Bearings are High Grade oversize Ball Bearings, mounted in end caps in closest proximity to the Wheels. They are completely enclosed and protected from dust and grit. Timken Roller Bearings where listed are optional without extra charge.

Lubrication. When machine is installed, the lubricating chambers should be filled (preferably to the overflow), through conveniently located cups, after which additional lubrication need only be added every few months depending upon the service. Drain plug permits quick flushing of bearings and chambers which should be done at least once or twice a year.

Motor Starter and Switch Equipment conforms to E. P. C. recommendations. Every HISEY Buffer and Polisher is furnished complete with approved switch control, which is a most important feature and worthy of careful consideration.

Inspection Covers on end bell permit full view and access while machine is in operation.

Wheels conform to the new sizes as recommended by the Bureau of Standards. They are not regularly supplied but can be furnished to special order.



"Hisey"

ELECTRIC DRILLS-GRINDERS-BUFFERS

THE HISEY-WOLF MACHINE CO. (Est. 1896) CINCINNATI, OHIO U.S.A.

"Hisey"



BENCH BUFFERS and POLISHERS

OPEN TYPE SPINDLE EXTENSIONS

BALL BEARING EQUIPPED

SEE IMPORTANT DETAILS, PAGE 24

They are ball bearing equipped and designed with liberal oil reservoirs, a desirable feature in machines of this kind. Spindle extensions are unusually heavy, made possible by the extra large shaft diameter through the center of the motor. The symmetrical cone shaped end heads with a liberal spacing between wheel centers add greatly to the adaptability and usefulness of these machines. Motor starting equipment gives maximum protection in starting and while running. Buffing wheels are not regularly supplied but can be furnished to special order. Accessories shown on page 20.

60 CYCLE ALTERNATING CURRENT—CONTINUOUS DUTY (40° C.) H. P. RATING

Code Word	Type	Volts	Size of Wheels in Inches	Speed R.P.M. No Load Always Specify	H. P.	Spindle Projections Size in Inches		Diameter of Spindle where Wheels go on in Inches	Distance between Wheel Centers in Inches	Size of Base at Bottom in Inches	Height Bottom of Base to Center of Spindle in Inches	Weight in Pounds		Boxed Dimensions in Inches
						Length A	Diameter					Net	Gross	
WIACF WIEDG WIOEH	1HBOA 1HBOA 1HBOA	110 V., 1 Ph. 220 V., 1 Ph. 220 V., 3 Ph.	5x1/2	3500	1/4	2	.....	1/2	11 1/4	7 1/4 x 8 3/4	7 3/4	50	80	12x15x20
WIPFK WIRGL WISHO WITKP	2HBOA 2HBOA 2HBOA 2HBOA	110 V., 1 Ph. 220 V., 1 Ph. 220 V., 3 Ph. 440 V., 3 Ph.	6x3/4	3425	1/2	5 3/8	1 1/16	5/8	19 1/4	8 1/2 x 10 1/2	9 1/2	85	135	14x18x20
WOFFL WOFGM WOFHN WOUFH	3HBOA 3HBOA 3HBOA 3HBOA	110 V., 1 Ph. 220 V., 1 Ph. 220 V., 3 Ph. 440 V., 3 Ph.	8x1	1725 or 3450	1	8 1/2	1 3/16	3/4	26 1/2	11 1/2 x 14 3/4	12 1/2	190	270	15x20x35
WOFIO WOFJP WOFKQ WOUGJ	4HBOA 4HBOA 4HBOA 4HBOA	110 V., 1 Ph. 220 V., 1 Ph. 220 V., 3 Ph. 440 V., 3 Ph.	11x1 1/2	1725 or 3450	2	10	1 5/16	1	30 1/4	11 1/2 x 14 3/4	13 1/4	225	325	20x24x40

50 cycles at 2825 R. P. M. for standard voltage at no extra charge.

Special Motor Specifications for above machines can be furnished at 10 per cent extra as follows:

Type 1HBOA:—

For single, two or three phase service for voltage from 80 to 250 volts, also for 50 cycles.

Types 2HBOA, 3HBOA and 4HBOA:—

For single phase for voltage from 80 to 275 volts. For two and three phase for voltage from 80 to 550 volts, 220 and 440 volts at standard prices. For lower frequency as follows: 40 cycles at 2225 R. P. M. 25 cycles at 1425 R. P. M.

DIRECT CURRENT—CONTINUOUS DUTY (40° C.) H. P. RATING

WIULR WIVOS	1HBOD 1HBOD	115 230	5x1/2	3600	1/4	2	.....	1/2	11 1/4	7 1/4 x 8 3/4	7 3/4	50	80	12x15x20
WIXRU WIZTX	2HBOD 2HBOD	115 230	6x3/4	3600	1/2	5 3/8	1 1/16	5/8	19 1/4	8 1/2 x 10 1/2	9 1/2	85	135	14x18x20
WOFOU WOFPV	3HBOD 3HBOD	115 230	8x1	2000 or 3600	1	8 1/2	1 3/16	3/4	26 1/2	11 1/2 x 14 3/4	12 1/2	190	270	15x20x35
WOFRW WOFBX	4HBOD 4HBOD	115 230	11x1 1/2	1800 or 3200	2	10	1 5/16	1	30 1/4	11 1/2 x 14 3/4	13 1/4	225	325	20x24x40

Direct Current Machines can be furnished at 10 per cent extra for special voltages as follows:

1/4 and 1/2 H. P. Buffers for voltages from 32 to 250 volts.
1 and 2 H. P. Buffers for voltages from 80 to 250 volts.

FLOOR STAND BUFFERS and POLISHERS

OPEN TYPE SPINDLE EXTENSIONS

BALL BEARING EQUIPPED

SEE IMPORTANT DETAILS, PAGE 24

Wheels are not regularly furnished, but can be supplied special to order. Buffing wheels listed give a general idea of the sizes most suitable for the average work.

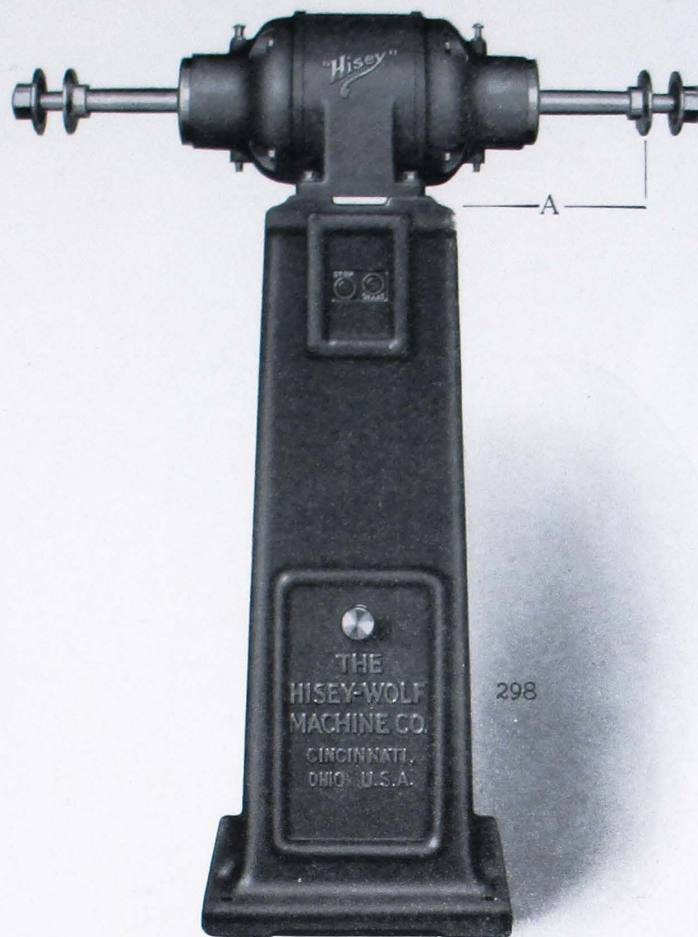
FURNISHED TO ORDER

Foot Treadle Switch shown on page 18.

Dust Collecting Hoods on page 19.

Exhauster Equipment on page 19.

Other accessories on page 20.



60 CYCLE ALTERNATING CURRENT—CONTINUOUS DUTY (40° C.) H. P. RATING

Code Word	Type	Volts	Size of Wheels in Inches	Speed R.P.M. No Load Always Specify	H. P.	Spindle Projections Size in Inches		Diameter of Spindle where Wheels go on in Inches	Distance between Wheel Centers in Inches	Size of Base at Bottom in Inches	Height Bottom of Base to Center of Spindle in Inches	Weight in Pounds		Boxed Dimensions in Inches
						Length A	Diameter					Net	Gross	
WAEHK WAIKL WAILO WANOQ	2HOA 2HOA 2HOA 2HOA	110 V., 1 Ph. 220 V., 1 Ph. 220 V., 3 Ph. 440 V., 3 Ph.	6x 3/4	3425	1/2	5 3/8	1 1/16	5/8	19 1/4	14x14 3/4	39	180	300	15x25x50
WOGAD WOGBE WOGCF WOUJL	3HOA 3HOA 3HOA 3HOA	110 V., 1 Ph. 220 V., 1 Ph. 220 V., 3 Ph. 440 V., 3 Ph.	8x1	1725 or 3450	1	8 1/2	1 3/16	3/4	26 1/2	14x14 3/4	38	325	450	18x35x50
WOGDG WOGEH WOGFJ WOUKM	4HOA 4HOA 4HOA 4HOA	110 V., 1 Ph. 220 V., 1 Ph. 220 V., 3 Ph. 440 V., 3 Ph.	11x1 1/2	1725 or 3450	2	10	1 5/16	1	30 1/4	14x14 3/4	38	375	525	20x40x50

The above Alternating Current Machines furnished for the same special motor specifications as machines listed on page 25.

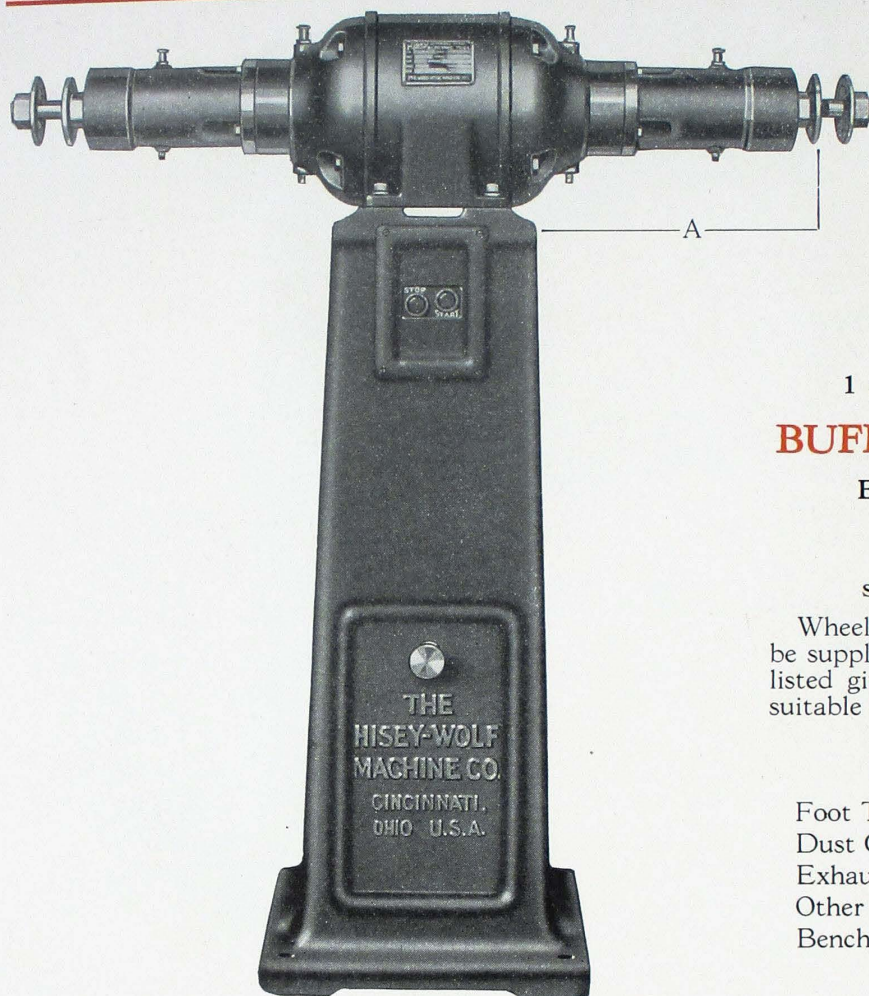
DIRECT CURRENT—CONTINUOUS DUTY (40° C.) H. P. RATING

WUFXY WUFYZ	2HOD 2HOD	115 230	6x 3/4	3600	1/2	5 3/8	1 1/16	5/8	19 1/4	14x14 3/4	39	180	300	15x25x50
WOGJN WOGKO	3HOD 3HOD	115 230	8x1	2000 or 3600	1	8 1/2	1 3/16	3/4	26 1/2	14x14 3/4	38	325	450	18x35x50
WGLP WOGMQ	4HOD 4HOD	115 230	11x1 1/2	1800 or 3200	2	10	1 5/16	1	30 1/4	14x14 3/4	38	375	525	20x40x50

The above Direct Current Machines furnished for the same special voltages as machines listed on page 25.

"Hisey" ELECTRIC DRILLS-GRINDERS-BUFFERS

THE HISEY-WOLF MACHINE CO. (Est. 1896) CINCINNATI, OHIO U.S.A. "Hisey"



1 and 2 H. P. FLOOR TYPE

BUFFERS and POLISHERS

ENCASED TYPE SPINDLE
EXTENSIONS

BALL BEARING EQUIPPED

SEE IMPORTANT DETAILS, PAGE 24

Wheels are not regularly furnished, but can be supplied special to order. Buffing wheels listed give a general idea of the sizes most suitable for the average work.

FURNISHED TO ORDER

Foot Treadle Switch shown on page 18.
Dust Collecting Hoods on page 19.
Exhauster Equipment on page 19.
Other accessories on page 20.
Bench Base Mounting.

60 CYCLE ALTERNATING CURRENT—CONTINUOUS DUTY (40° C.) H. P. RATING

Code Word	Type	Volts	Size of Wheels in Inches	Speed R.P.M. No Load Always Specify	H. P.	Spindle Projections Size in Inches		Diameter of Spindle where Wheels go on in Inches	Distance between Wheel Centers in Inches	Size of Base at Bottom in Inches	Height Bottom of Base to Center of Spindle in Inches	Weight in Pounds		Boxed Dimensions in Inches
						Length A	Diameter					Net	Gross	
WAOPU WAQRW WAUSX WAXTZ	3HEA 3HEA 3HEA 3HEA	110 V., 1 Ph. 220 V., 1 Ph. 220 V., 3 Ph. 440 V., 3 Ph.	8x1	1725 or 3450	1	12 1/4	4	3/4	34 1/4	14x14 3/4	38	360	500	20x45x50
WOGGK WOGHL WOGIM WOULO	4HEA 4HEA 4HEA 4HEA	110 V., 1 Ph. 220 V., 1 Ph. 220 V., 3 Ph. 440 V., 3 Ph.	11x1 1/2	1725 or 3450	2	12 1/2	4	1	35 1/4	14x14 3/4	38	420	575	24x45x50

Single Phase Machines have Repulsion Induction Motors and can conveniently be connected to any lamp socket.

Special Motor Specifications for above machines can be furnished as follows at no extra charge:

For two phase service for 220, 440 or 550 volts.

For three phase service at 550 volts.

For 50 cycles at speed 2825 R. P. M.

Furnished as follows at 10 per cent extra:

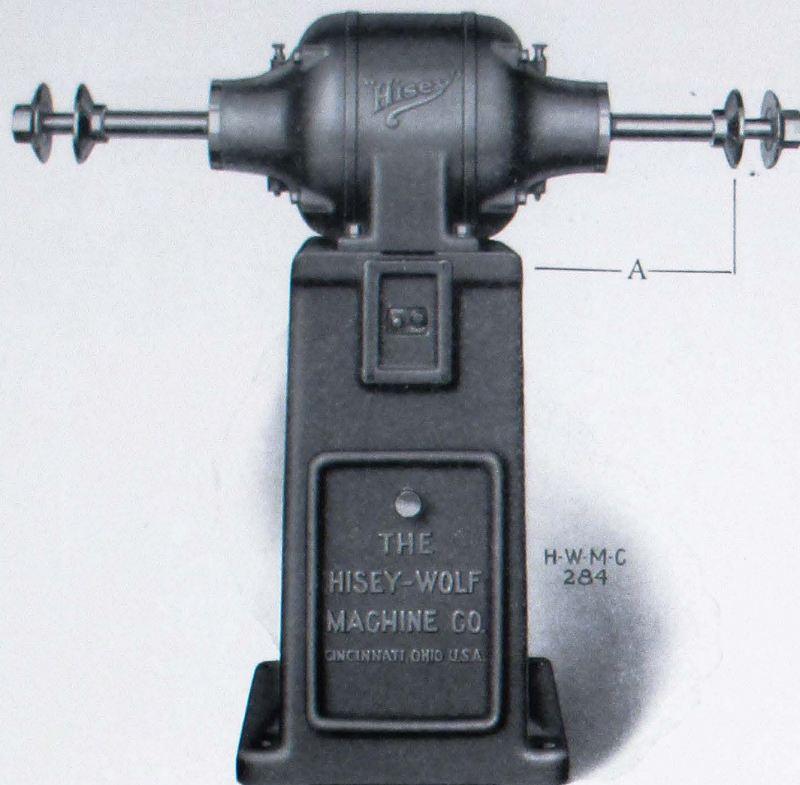
For 40 cycles speed 2225 R. P. M. For 25 cycles speed 1425 R. P. M.

For special intermediate voltage between 80 and 550 volts. Single phase up to 275 volts.

DIRECT CURRENT—CONTINUOUS DUTY (40° C.) H. P. RATING

WXABE WXBCF	3HED 3HED	115 230	8x1	2000 or 3600	1	12 1/4	4	3/4	34 1/4	14x14 3/4	38	360	500	20x45x50
WOGNR WOGOS	4HED 4HED	115 230	11x1 1/2	1800 or 3200	2	12 1/2	4	1	35 1/4	14x14 3/4	38	420	575	24x45x50

The above Direct Current Machines can be furnished for special voltages from 80 to 250 volts, at 10 per cent extra.



HEAVY DUTY BUFFERS and POLISHERS

OPEN TYPE SPINDLE EXTENSIONS

BALL BEARING EQUIPPED

SEE IMPORTANT DETAILS, PAGE 24

Wheels are not regularly furnished, but can be supplied special to order. Buffing wheels listed give a general idea of the sizes most suitable for the average work.

FURNISHED TO ORDER

Foot Treadle Switch shown on page 18.
 Dust Collecting Hoods on page 19.
 Exhauster Equipment on page 19.
 Other accessories on page 20.

60 CYCLE ALTERNATING CURRENT—CONTINUOUS DUTY (40° C.) H. P. RATING

Code Word	Type	Volts	Size of Wheels in Inches	Speed R.P.M. No Load Always Specify	H. P.	Spindle Projections Size in Inches		Diameter of Spindle where Wheels go on in Inches	Distance between Wheel Centers in Inches	Size of Base at Bottom in Inches	Height Bottom of Base to Center of Spindle in Inches	Weight in Pounds		Boxed Dimensions in Inches
						Length A	Diameter					Net	Gross	
WOUMP WOUNQ	5HOA 5HOA	220 V., 3 Ph. 440 V., 3 Ph.	13x2	1725 or 3450	2½	11½	1⅝	1¼	39	16x18½	36	500	600	25x50x53
WOGPT WOGRU	6HOA 6HOA	220 V., 3 Ph. 440 V., 3 Ph.	13x2½	1725 or 3450	3½	12½	1⅝	1¼	40	16x18½	36	550	650	25x50x53
WOGSW WOGTX	7HOA 7HOA	220 V., 3 Ph. 440 V., 3 Ph.	14x3	1725 or 3450	5	14	1⅞	1½	42	16x18½	36	600	725	25x50x55
WOGUZ WOHAE	8HOA 8HOA	220 V., 3 Ph. 440 V., 3 Ph.	18x3	1725	7½	14	1⅞	1½	42	16x18½	36	775	925	25x50x55

Special Motor Specifications for above machines can be furnished as follows at no extra charge:

For two phase service for 220, 440 or 550 volts.

For three phase service at 550 volts.

For 50 cycles at speed 2825 R. P. M.

Furnished as follows at 10 per cent extra:

For single phase 110 and 220 volts for 50 or 60 cycles up to and including 5 H. P. with Repulsion Induction Motors

For 40 cycles speed 2225 R. P. M. For 25 cycles speed 1425 R. P. M.

For special intermediate voltages between 80 and 550 volts.

DIRECT CURRENT—CONTINUOUS DUTY (40° C.) H. P. RATING

WOHBF WOHCG	6HOD 6HOD	115 230	13x2½	1725 or 2700	3½	12½	1⅝	1¼	41	16x18½	36	550	650	25x50x53
WOHEJ	7HOD	230	14x3	1725 or 2600	5	14	1⅞	1½	42	16x18½	36	600	725	25x50x55
WOHGL	8HOD	230	18x3	1725 or 2600	7½	14	1⅞	1½	42	16x18½	36	775	925	25x50x55

The above Direct Current Machines can be supplied for special voltages from 110 up to 250 volts at 10 per cent extra.

HEAVY DUTY BUFFERS and POLISHERS

ENCASED TYPE SPINDLE
EXTENSIONS

BALL BEARING EQUIPPED

SEE IMPORTANT DETAILS, PAGE 24

Wheels are not regularly furnished, but can be supplied special to order. Buffing wheels listed give a general idea of the sizes most suitable for the average work.

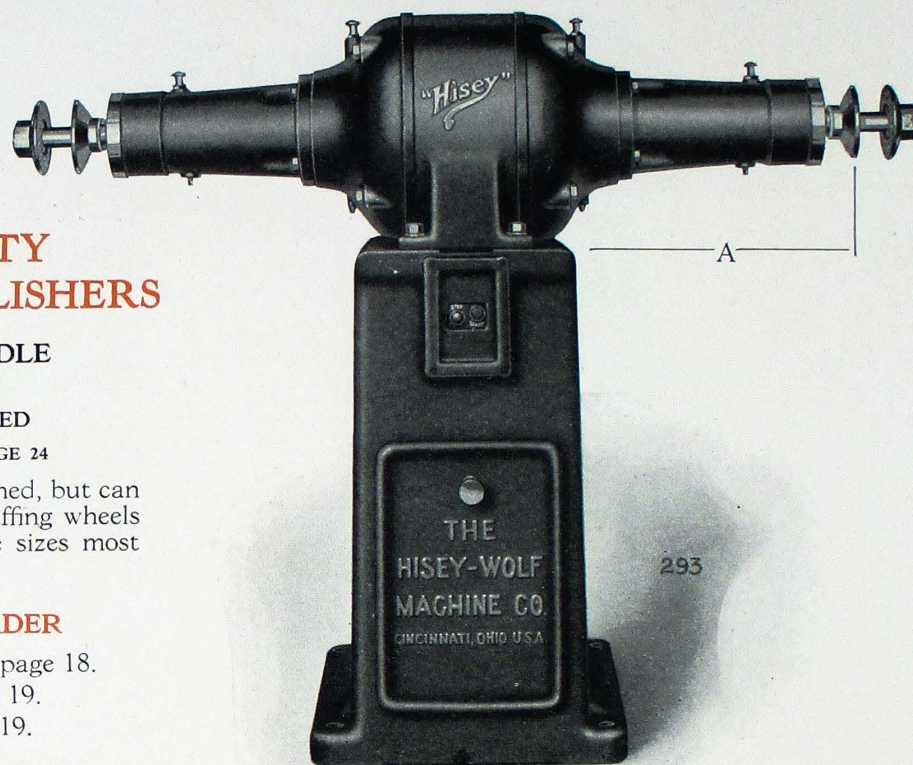
FURNISHED TO ORDER

Foot Treadle Switch shown on page 18.

Dust Collecting Hoods on page 19.

Exhauster Equipment on page 19.

Other accessories on page 20.



60 CYCLE ALTERNATING CURRENT—CONTINUOUS DUTY (40° C.) H. P. RATING

Code Word	Type	Volts	Size of Wheels in Inches	Speed R.P.M. No Load Always Specify	H. P.	Spindle Projections Size in Inches		Diameter of Spindle where Wheels go on in Inches	Distance between Wheel Centers in Inches	Size of Base at Bottom in Inches	Height Bottom of Base to Center of Spindle in Inches	Weight in Pounds		Boxed Dimensions in Inches
						Length A	Diameter					Net	Gross	
WOUSU WOUTV	5HEA 5HEA	220 V., 3 Ph. 440 V., 3 Ph.	13x2	1725 or 3450	2½	14	4⅜	1¼	44	16x18½	36	575	650	25x50x57
WOHHM WOHIN	6HEA 6HEA	220 V., 3 Ph. 440 V., 3 Ph.	13x2½	1725 or 3450	3½	15	4⅜	1¼	45	16x18½	36	625	725	25x50x57
WOHJO WOHKP	7HEA 7HEA	220 V., 3 Ph. 440 V., 3 Ph.	14x3	1725 or 3450	5	17*	4⅞	1½	48*	16x18½	36	690	815	25x50x61
WOHLQ WOHMR	8HEA 8HEA	220 V., 3 Ph. 440 V., 3 Ph.	18x3	1725	7½	17*	4⅞	1½	48*	16x18½	36	850	1000	25x50x61

Special Motor Specifications for above machines can be furnished as follows at no extra charge:

For two phase service at 220, 440 or 550 volts.

For three phase service at 550 volts.

For 50 cycles at speed 2825 R. P. M.

Furnished as follows at 10 per cent extra:

For single phase 110 and 220 volts for 50 or 60 cycles up to and including 5 H. P. with Repulsion Induction Motors.

For 40 cycles speed 2225 R. P. M. For 25 cycles speed 1425 R. P. M.

For special intermediate voltage between 80 and 550 volts.

*With special long extensions—Dimension A is 23 inches. Distance between wheel centers is 60 inches.

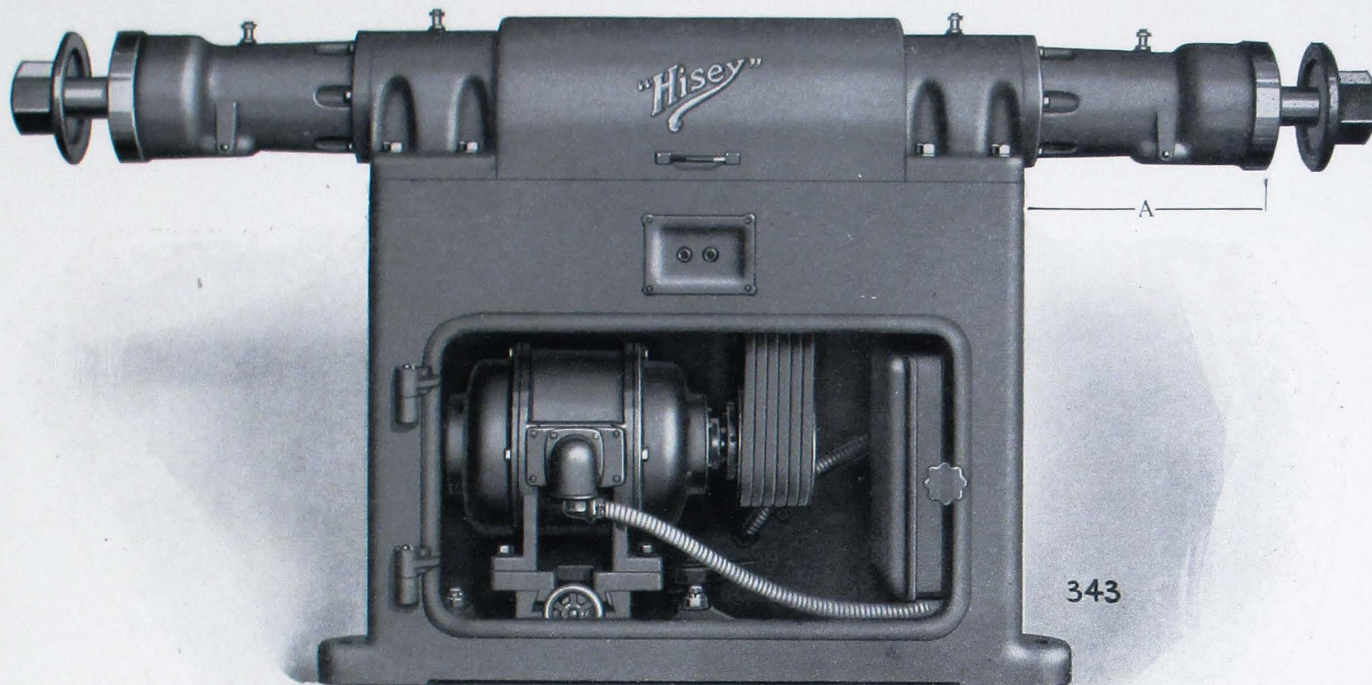
DIRECT CURRENT—CONTINUOUS DUTY (40° C.) H. P. RATING

WOHNS	6HED	115	13x2½	1725 2800 or 3450	3½	15	4⅜	1¼	47	16x18½	36	625	725	25x50x57
WOHOT	6HED	230	13x2½	1725 or 3450	3½	15	4⅜	1¼	47	16x18½	36	625	725	25x50x57
WOHRV	7HED	230	14x3	1725 or 2400	5	17	4⅞	1½	48	16x18½	36	700	815	25x50x61
WOHTX	8HED	230	18x3	1200 or 1800	7½	17	4⅞	1½	48	16x18½	36	850	1000	25x50x61

The above Direct Current Machines can be supplied for special voltages from 110 up to 250 volts at 10 per cent extra.

TexDrive BUFFING and POLISHING MACHINES

PATENTS PENDING



IMPORTANT CONSTRUCTION FEATURES

Unit spindle head construction.

Bearing box mounting and general accessibility, described in detail on page 35.

Motor, ball bearing equipped, mounted horizontally on a dovetailed sliding base, is adjusted by means of hand wheel and feed screw, which is described in more detail on page 11.

Flex-Steel Conduit and fittings.

Spindle is mounted on four oversize ball bearings. Timken Roller Bearings are optional without extra charge.

SPECIFICATIONS

Code Word	Type	Volts *	Speed of Spindle R.P.M. No Load	H. P. of Motor	Spindle Projection in Inches				Dimensions in Inches			Weight in Pounds		Crated Dimensions in Inches
					Length A †	Diameter	Wheel Arbor		Length Over All	Height Base to Center of Spindle	Size of Base at Bottom	Net	Gross	
							Diameter ◇	Length between Flanges						
WXQSU	10TWE	220, 440 or 550 volts for 50 or 60 cycles 2 or 3 Phase. Always Specify	Furnish Speed to Suit. Always Specify	10	15	7½	2½	3½	82	34½	28x44	2500	2800	34x50x88
WXUWZ	15TWE		15	15	7½	2½	3½	82	34½	28x44	2600	2900	34x50x88	

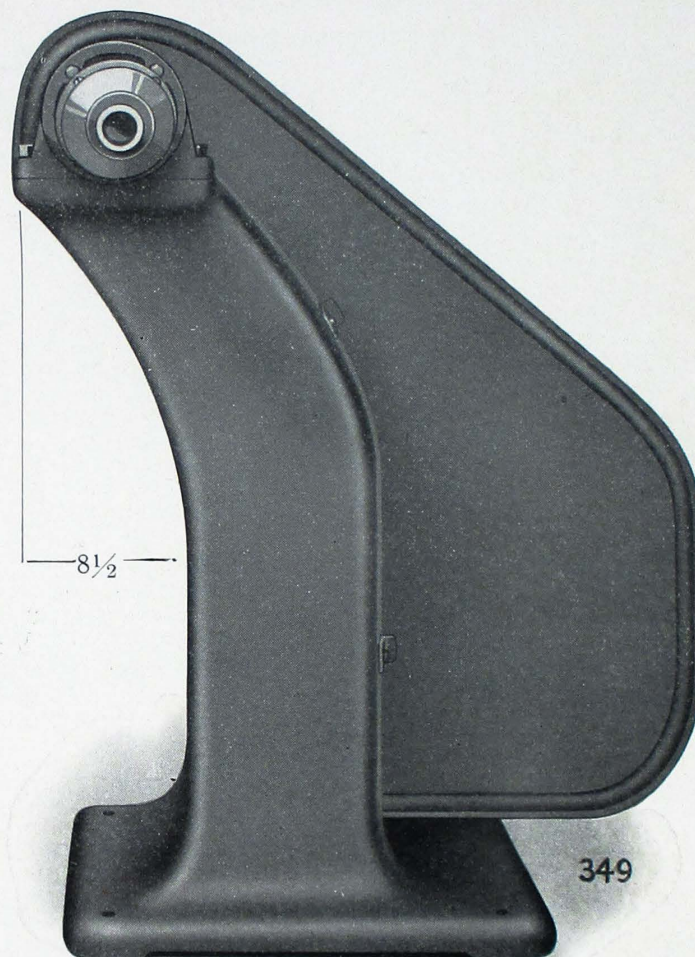
*Machines with Motor Specifications other than listed furnished to special order.

†Wheel Arbor Ends of smaller diameter to special order at standard price.

‡Can furnish to order with dimension A—19 3/4 inches, making overall spindle length 91 1/2 inches, 5 per cent extra.

TexDrive BUFFING and POLISHING MACHINES

See Detailed Specifications on Page 33



CONSTRUCTION FEATURES

The motor mounting is of the external type with a rigid four point support. This method of mounting was adopted in preference to using a three point hinged or tilting base. Motor is ball bearing equipped and has dove-tailed sliding base including gib with necessary locking screws. Adjustment is made by means of hand-wheel and feed-screw. By this simple and effective means, it is easy to secure proper belt tension and accurate alignment of the motor. Can be furnished without motor if desired.

OTHER IMPORTANT DETAILS

on Page 35 such as

Gooseneck Construction with 8 1/2 inches overhang—see cut above.

Flex-Steel Conduit and fittings.

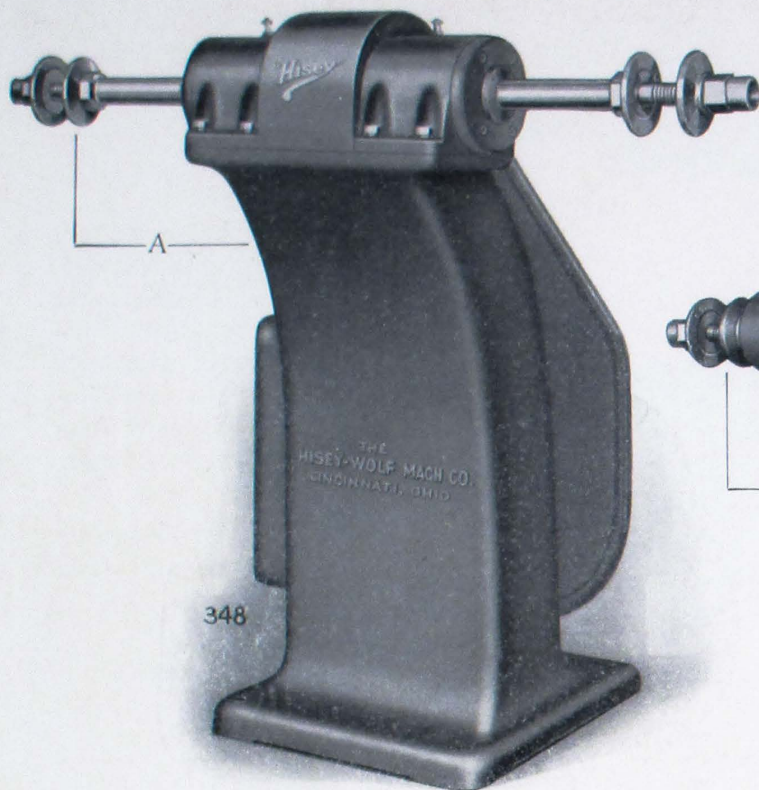
Unit Spindle Head construction.

Keyed Bearing Box mounting and general accessibility.

Oversize high grade ball bearings of ample proportions are provided on each end of the spindle.

Timken Roller Bearings are optional without extra charge.

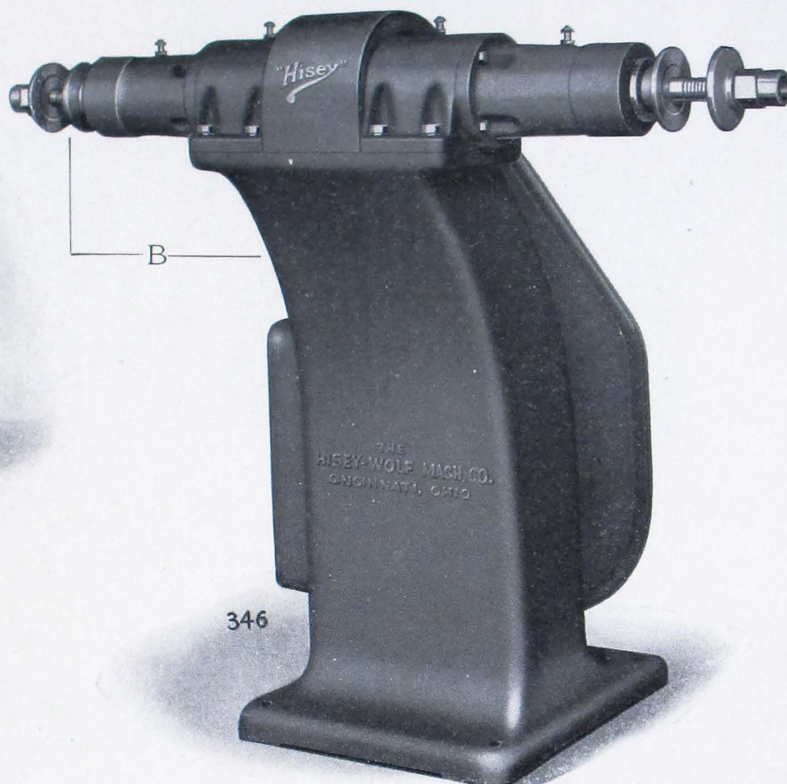
BELTS—Tex-Rope Belts for all HISEY TexDrive Buffing and Polishing Machines as shown and described on pages 32 to 37 inclusive, are of the same size and interchangeable.



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TexDrive
BUFFING and
POLISHING MACHINES

SEE IMPORTANT DETAILS ON PAGE 32



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SPECIFICATIONS

OPEN TYPE SPINDLE EXTENSIONS (See Cut at Left)

Code Word	Type	Volts *	Speed of Spindle R.P.M. No Load	H.P. of Motor	Spindle Dimensions in Inches					Dimensions in Inches			Weight in Pounds		Crated Dimensions in Inches
					Length		Diameter between Bearings	Wheel Arbor Ends		Length Overall	Height Bottom of Base to Center of Spindle	Size of Base at Bottom	Net	Gross	
					A	B		Diameter \diamond	Length between Flanges						
WZSVW	6MO	220, 440 or 550 volts for 50 or 60 cycles 2 or 3 Phase. Always Specify	Furnish Speed to Suit. Always Specify	3	12	.....	2 $\frac{3}{4}$	1 $\frac{1}{2}$	3	48	39	20x22 $\frac{1}{2}$	850	1000	44x48x52
WZTWX	7MO		Furnish Speed to Suit. Always Specify	5	12	.....	2 $\frac{3}{4}$	1 $\frac{1}{2}$	3	48	39	20x22 $\frac{1}{2}$	900	1050	44x48x52
WZUXY	8MO		Furnish Speed to Suit. Always Specify	7 $\frac{1}{2}$	12	.....	2 $\frac{3}{4}$	1 $\frac{1}{2}$	3	48	39	20x22 $\frac{1}{2}$	950	1100	44x48x52

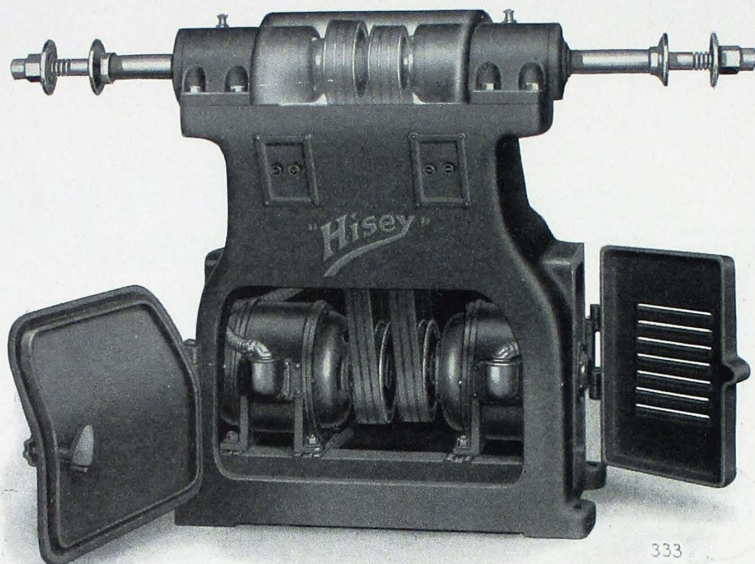
ENCASED TYPE SPINDLE EXTENSIONS (See Cut at Right)

WZWYZ	6ME	220, 440 or 550 volts for 50 or 60 cycles 2 or 3 Phase. Always Specify	Furnish Speed to Suit. Always Specify	3	.....	14	2 3/4	1 1/2	3	52	39	20x22 1/2	900	1050	44x48x56
XABCD	7ME		Furnish Speed to Suit. Always Specify	5	.....	14	2 3/4	1 1/2	3	52	39	20x22 1/2	950	1100	44x48x56
XBCDE	8ME		Furnish Speed to Suit. Always Specify	7 1/2	.....	14	2 3/4	1 1/2	3	52	39	20x22 1/2	1000	1150	44x48x56

*Furnished to special order with Motor Specifications other than listed price on application.
 *Wheel Arbor Ends 1 1/4-inch diameter, furnished to order at standard price.

TexDrive BUFFING and POLISHING MACHINES

PATENTS PENDING



One glance at the illustrations will tell you that the HISEY TexDrive Buffer is new, distinctly different and decidedly better in many ways. Outstanding among the many advantages of this new HISEY product are simplicity, rigidity, accessibility and freedom from vibration, which mean longer life to the machine.

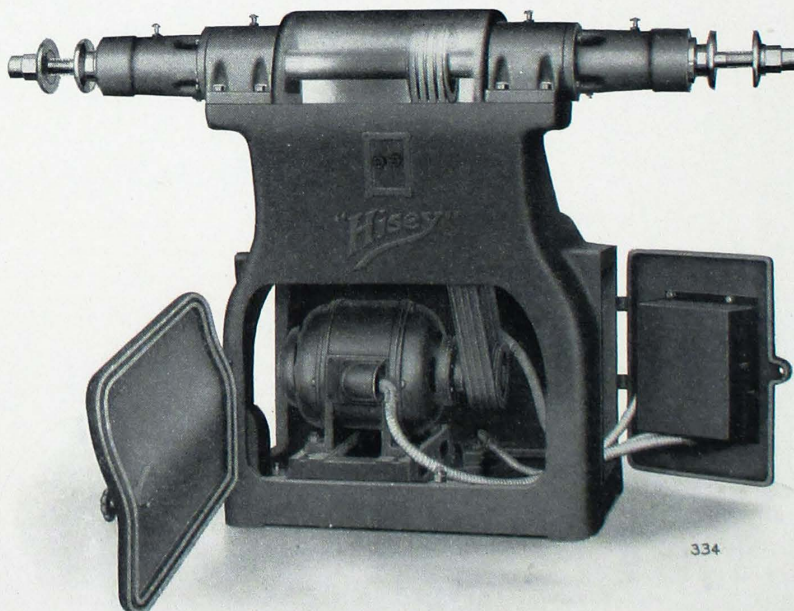
The many practical improvements assure increased production and lower upkeep cost.

TWO MOTOR TWO SPINDLE MACHINE

Detailed Specifications on Pages 35, 36 and 37

High grade ball bearings of ample proportions are provided on each end of the spindle. Timken Roller Bearings are optional without extra charge.

Belts—TexRope Belts for all HISEY TexDrive Buffing and Polishing Machines as shown and described on pages 32 to 37 inclusive, are of same size and interchangeable.



ONE MOTOR ONE SPINDLE MACHINE

Detailed Specifications on Pages 35, 36 and 37

TexDrive BUFFING and POLISHING MACHINES

PATENTS PENDING

Detailed Specifications on Pages 36 and 37



Gooseneck Construction Gives Ample Working Clearance

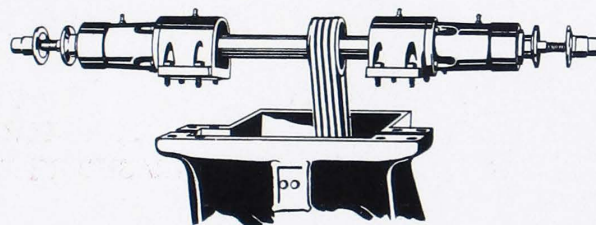
Observe the illustration at left. Note how the spindle and buffing wheels extend out from the base of the machine, permitting easy handling of large or odd-shaped pieces. This design also allows the operator to stand close to or sit comfortably at the machine when nature of work permits.

Entire Head Easily Removed

The spindle and bearing housings are assembled as a unit. This entire unit may be quickly removed from the base by loosening four bolts on each side. This arrangement simplifies changing of belts, also eliminates the necessity of pulling the spindle through the bearing housings.

All Parts Readily Accessible

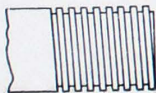
Accessibility of all parts means a great saving of time when adjustments are necessary. The belt tension is adjusted by moving the motor along the planed ways. When properly adjusted the motor is held immovably in position by tightening four clamp bolts. The motor is mounted in natural horizontal position with 4-point bearing on heavy base.



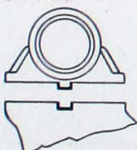
Safety Wheel Nut. Made of Tobin bronze. Protects threads and operator.



Flat-top Threads. Afford greatest security in holding buffing wheel in place. Extremely long life. Will retain shape throughout life of machine.



Bearing Boxes Keyed to Column. Key along entire base of bearing housing insures perfect and permanent alignment.



Large Doors in column give easy access to motor and motor starter.

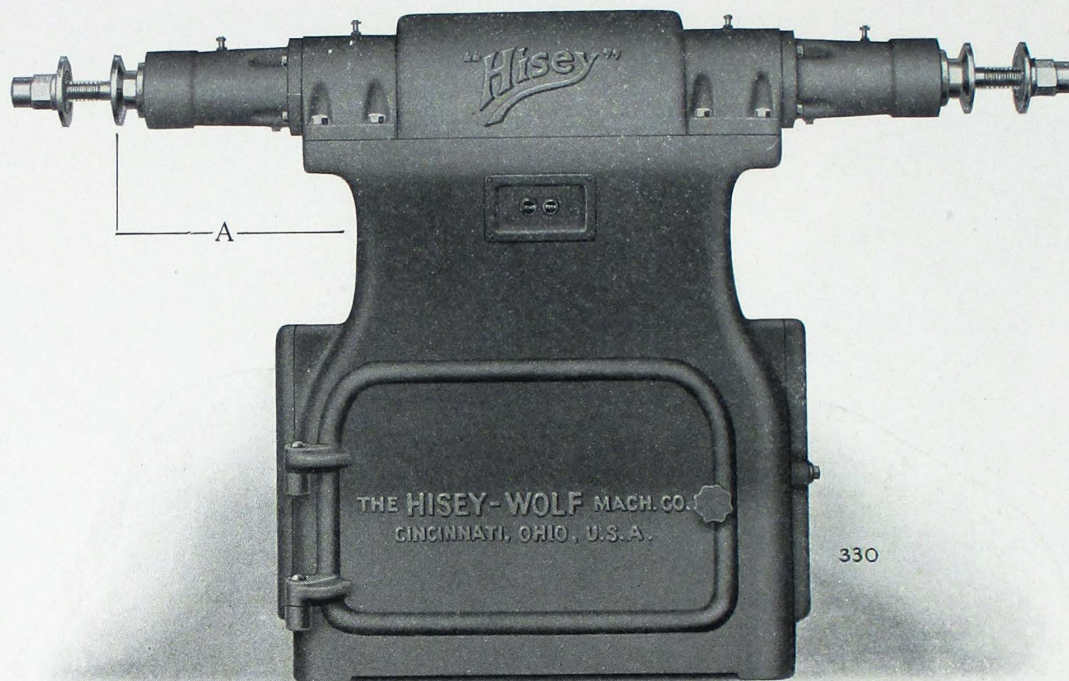
Motor, Ball Bearing Equipped . . . Mounted Horizontally. Motor is solidly mounted on stationary base which is securely bolted at four points to main frame insuring permanent alignment of motor and spindle.

Flex-Steel Conduit and Fittings. Meet all requirements of Underwriters.

TexDrive BUFFING and POLISHING MACHINES

PATENTS PENDING

See Exploded View and Important Details on Pages 34 and 35



SPECIFICATIONS ONE MOTOR—ONE SPINDLE MACHINES WITH ENCASED TYPE SPINDLE EXTENSIONS

Code Word	Type	Volts *	Speed of Spindle R.P.M. No Load	H. P. of Motor	Spindle Dimensions in Inches				Dimensions in Inches			Weight in Pounds		Crated Dimensions in Inches
					Length A ‡	Diameter between Bearings	Wheel Arbor Ends		Length Overall	Height Base to Center of Spindle	Size of Base at Bottom	Net	Gross	
WYWYZ	7TE	220, 440 or 550 volts for 50 or 60 cycles 2 or 3 Phase Always Specify	Furnish Speed to Suit. Always Specify	5	15	2 3/4	1 1/2	3	63 1/4	39	24x35 1/2	1585	1775	40x50x70
WZABD	8TE			7 1/2	15	2 3/4	1 1/2	3	63 1/4	39	24x35 1/2	1660	1850	40x50x70
WZBCE	10TE			10	15	2 3/4	1 1/2	3	63 1/4	39	24x35 1/2	1725	1900	40x50x70

SPECIFICATIONS TWO MOTOR—TWO SPINDLE MACHINES WITH ENCASED TYPE SPINDLE EXTENSIONS

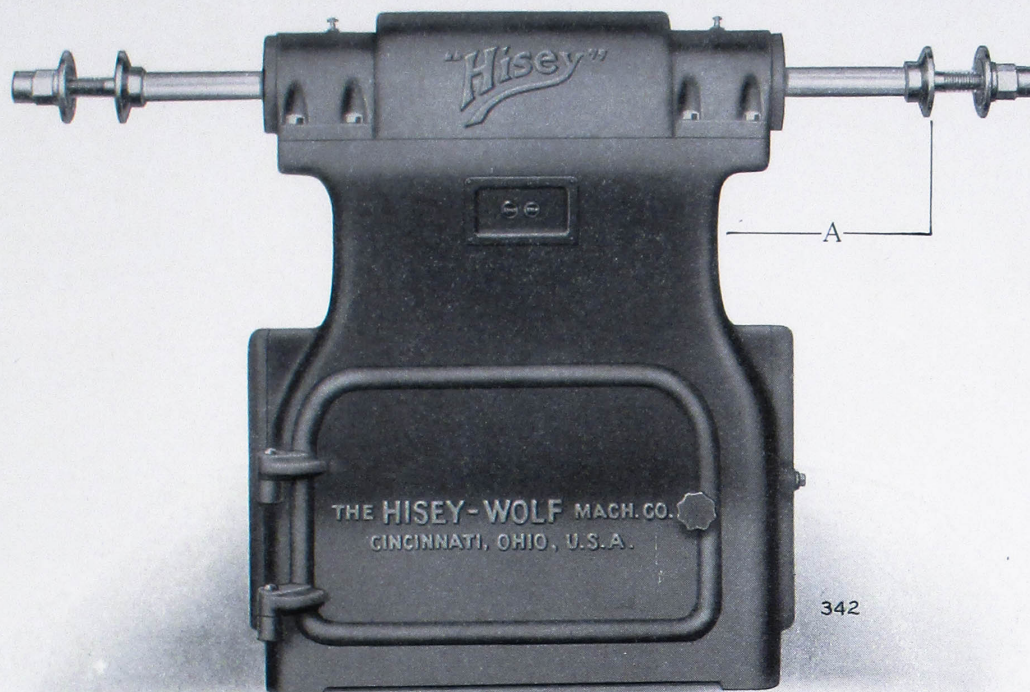
WZCDE	6TTE	220, 440 or 550 volts for 50 or 60 cycles 2 or 3 Phase Always Specify	Furnish Speed to Suit. Always Specify	Two 3 H. P. Motors	15	2 3/4	1 1/2	3	63 1/4	39	24x35 1/2	1675	1875	40x50x70
WZDEF	7TTE			Two 5 H. P. Motors	15	2 3/4	1 1/2	3	63 1/4	39	24x35 1/2	1790	2000	40x50x70

*Machines with Motor Specifications other than listed, furnished to special order, price on application.
 ‡Furnished to order with dimension A—22 1/2 inches, making overall spindle length 78 1/4 inches, at 5 per cent extra.
 ¶Furnished to order with dimension A—27 inches, making overall spindle length 90 inches, at 10 per cent extra.
 ◇Wheel Arbor Ends 1 1/4-inch diameter furnished to order at standard price.

TexDrive BUFFING and POLISHING MACHINES

PATENTS PENDING

See Exploded View and Important Details on Pages 34 and 35



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SPECIFICATIONS

ONE MOTOR—ONE SPINDLE MACHINES WITH OPEN TYPE SPINDLE EXTENSIONS

Code Word	Type	Volts *	Speed of Spindle R.P.M. No Load	H. P. of Motor	Spindle Dimensions in Inches				Dimensions in Inches			Weight in Pounds		Crated Dimensions in Inches
					Length A	Diameter between Bearings	Wheel Arbor Ends		Length Overall	Height Base to Center of Spindle	Size of Base at Bottom	Net	Gross	
WZEFG	7TO	220, 440 or 550 volts for 50 or 60 cycles 2 or 3 Phase. Always Specify	Furnish Speed to Suit. Always Specify	5	12	2 3/4	1 1/2	3	57 1/4	39	24x35 1/2	1520	1680	40x50x60
WZFGH	8TO			7 1/2	12	2 3/4	1 1/2	3	57 1/4	39	24x35 1/2	1590	1750	40x50x60
WZGHJ	10TO			10	12	2 3/4	1 1/2	3	57 1/4	39	24x35 1/2	1650	1825	40x50x60

SPECIFICATIONS

TWO MOTOR—TWO SPINDLE MACHINES WITH OPEN TYPE SPINDLE EXTENSIONS

WZHJK	6TTO	220, 440 or 550 volts for 50 or 60 cycles Always Specify	Furnish Speed to Suit. Always Specify	Two 3 H. P. Motors	12	2 3/4	1 1/2	3	57 1/4	39	24x35 1/2	1600	1800	40x50x60
WZJKL	7TTO			Two 5 H. P. Motors	12	2 3/4	1 1/2	3	57 1/4	39	24x35 1/2	1720	1925	40x50x60

*Machines with Motor Specifications other than listed, furnished to special order, price on application.
°Wheel Arbor Ends 1 1/4-inch diameter, furnished to order at standard price.

ELECTRIC DRILLS, REAMERS and DRIVERS

Internal Construction—Hisey Universal Drills in all sizes are of the same general mechanical and electrical design. The many noteworthy constructional features which invariably make HISEY machines the basis of comparison and which appeal to experienced users and the mechanical engineer, are illustrated in detail on page 43.

Utility—These machines are designed to give the greatest efficiency for drilling and reaming operations. Capacities as given for drilling in steel are correspondingly higher for softer metals and for some classes of wood boring.

Should you have any difficulty in selecting the proper size Drill or Reamer for your work, we will gladly give you the benefit of our experience in the application of these machines.

Bearings—High Grade Ball Bearings of type best adapted for the application are used, affording minimum replacement. Sleeve bearings where necessary, are liberally proportioned according to the service.

Ventilation is scientifically applied. The vents are so placed that all the cool incoming air must pass over the commutator and brushes before being drawn through the motor and expelled.

Switch for each machine is of size and type best adapted for the service. A two-pole Underwriters' approved switch is standard equipment on all drills of $\frac{3}{8}$ -inch capacity and larger. Machines up to and including $\frac{7}{8}$ -inch capacity are provided with a convenient grip or trigger control. The automatic switch as used on the larger sizes is constructed to open automatically when trigger is released.

Gears are made of High Grade Steel alloyed for greatest toughness and longest wear and are electrically heat treated.

Lubrication—All bearings, gears and other moving parts in the gear end of machine are lubricated from gear transmission case with lubricant of carefully selected quality for this kind of service. Ball Bearing in commutator end is packed with grease.

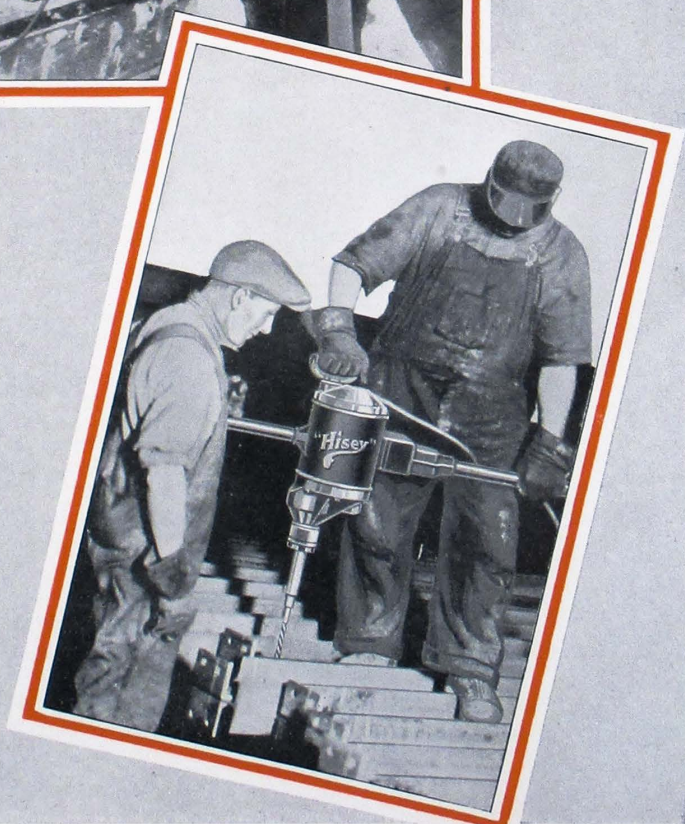
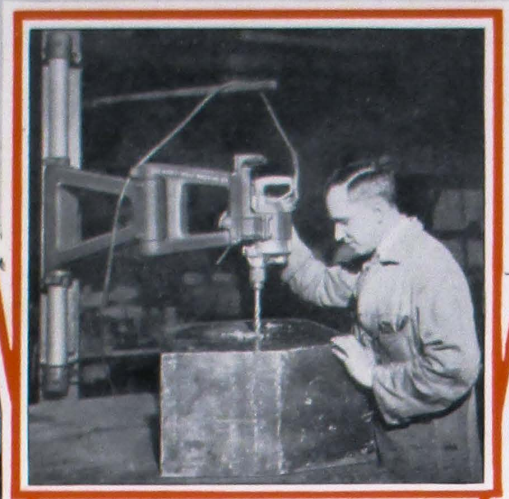
So that machines can be kept properly lubricated, we are prepared to furnish this same "HISEY" Drill Lubricant in containers of convenient size.

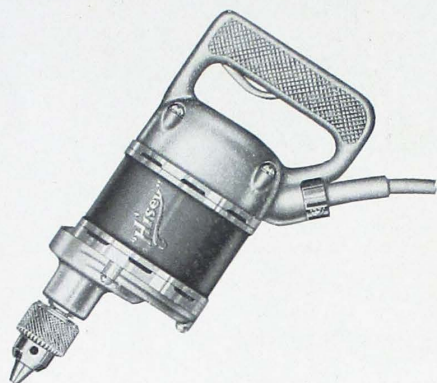
Universal Motors are of our design and manufacture in contrast to the stock power motors used in the construction of many "assembled" Electric Drills.

They do not operate at dangerously high speed (a feature which reduces wear and adds to the life of machine), and are equipped with a practical commutator of liberal size. Motor contains more iron and more copper, hence—more power.

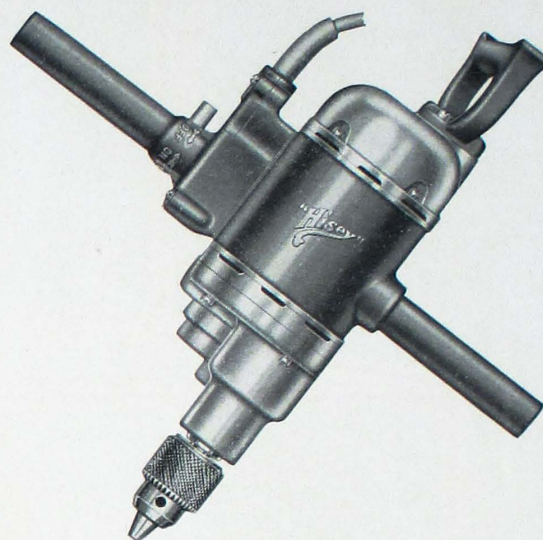
Alternating Current Motors are of the squirrel cage induction type and regularly designed for 60 cycle operation.

Ground Wire as an integral part of conductor, can be furnished for wiring systems with a ground circuit. Three wire cables can be furnished with standard three pole connector, also cables with extra ground conductor for two and three phase machines at regular price.





1/4-INCH CAPACITY



1/2-INCH CAPACITY

STANDARD DUTY UNIVERSAL DRILLS

Will Operate on Alternating Current and Direct Current of the same Voltage

In these drills, as in every HISEY product, quality is given foremost consideration.

Being of the same symmetrical design as other HISEY Drills adds to the outward appearance. However, a full knowledge of the internal and electrical construction is better appreciated by the experienced user and mechanical engineer.

Note: The construction specifications are the same as in the larger HISEY Drills shown in full detail on page 43. This is the best safety gauge for making a comparison.

OTHER IMPORTANT DETAILS ON PAGE 38.

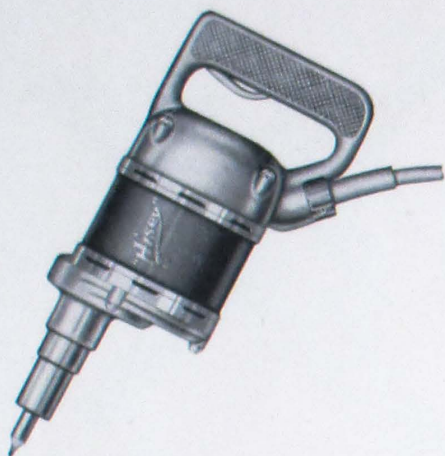
Code Word	Type	Volts	Capacity in Steel in Inches	Speed R. P. M. No Load	Net Weight in Pounds	Length Overall with End Handle in Inches	Boxed Dimensions	
							Gross Weight in Pounds	Size of Box in Inches
WUESU WUETW	15CU 15CU	110 220	1/4	2200	5	10 1/2	10	5x11x15
WUEWX WUEYZ	45CU 45CU	110 220	1/2	375	14	16	25	5x13x18

The above machines can be furnished for special voltages from 32 to 250 volts at 10 per cent extra.

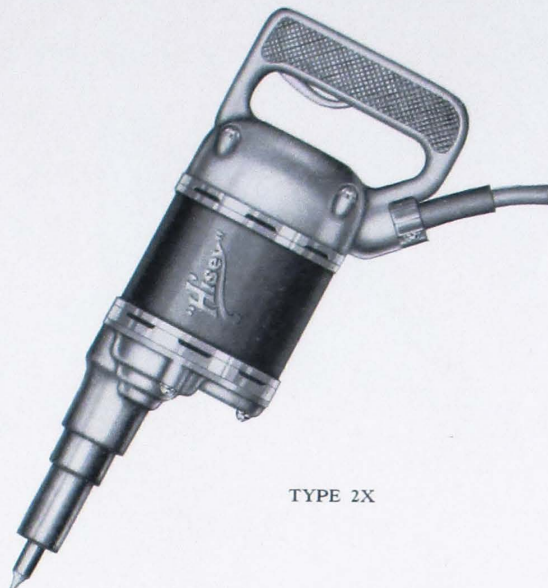
Standard Equipment—All of the above machines are supplied with 10 feet All Rubber Conductor Cable fitted with suitable attaching plug and drill chuck for holding straight round shank drills from 0 up to maximum capacity of the machine.

Keyless Drill Chuck (page 47) furnished to order for Type 45CU at standard price.

Attachments and Accessories on pages 47, 48 and 49.



TYPE 1X



TYPE 2X

ELECTRIC SCREW DRIVERS and NUT SETTERS

Will Operate on Alternating Current and Direct Current of the same Voltage

The famous HISEY "Single Purpose" Universal Motor with Ball Bearing mounting is standard equipment. As in every Hisey product quality in every detail is given foremost consideration.

These sturdy yet light weight machines are designed for production work in driving screws and setting nuts. General service recommendations listed below.

Sockets can be furnished in the following sizes: 3/8, 7/16, 1/2 and 9/16-inch across the flats.

Bits and sockets are interchangeable.

With the exception of the quick acting driving clutch the general constructional specifications are the same as in the HISEY Drills shown in full detail on page 43.

OTHER IMPORTANT DETAILS ON PAGE 38.

Code Word	Type	Volts	Speed of Spindle R. P. M. No Load	Service Recommendations					Machine Dimensions		Boxed Dimensions	
				Screws				Nuts	Net Weight in Pounds	Length Overall in Inches	Gross Weight in Pounds	Size of Box in Inches
				Size Screw	Size Drill for Clearance Hole	Size Drill for Lead Hole		Sizes Up to and Including				
WUFAB	1X	110	375	6	9/64	45	38	1/4	5 1/2	11	11	5x11x16
WUFEC	1X	220		8	5/32	40	31					
WUFHD	2X	110	300 *	12	7/32	30	20	3/8	7	13	14	5x11x16
WUFKG	2X	220		14	1/4	26	14					
				16	17/64	19	8					

The above machines can be furnished for special voltages from 32 to 250 volts, at 10 per cent extra.

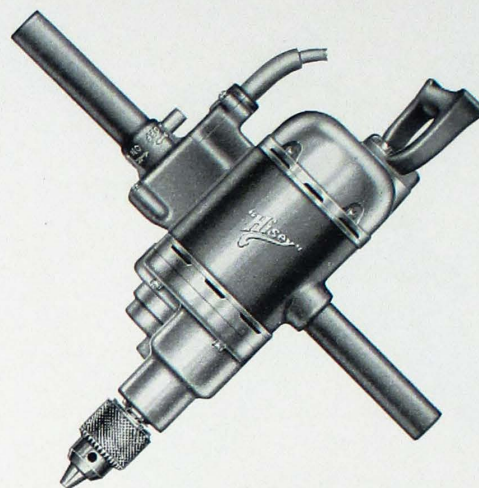
Standard Equipment—All of the above machines are supplied with 10 feet All Rubber Conductor Cable, attaching plug, quick acting clutch and three driving bits, unless otherwise specified.

Screw Slot Finding Attachment is furnished to order only for screw size as specified.

*Can be furnished at speed of 425 R. P. M. at 5 per cent extra.



1/4-INCH—TYPE 18CU
 5/16-INCH—TYPE 25CU



3/8-INCH—TYPE 35CU

HEAVY DUTY UNIVERSAL DRILLS

Will Operate on Alternating Current and Direct Current of the same Voltage

The famous HISEY "Single Purpose" Universal Motor with ball bearing mounting is standard equipment. These sturdy Drills like other HISEY products are designed for continuous production work and for all varieties of maintenance work where dependable performance is required.

An important feature worthy of your careful consideration is the electrical and mechanical design which in these small Drills is exactly the same as in the larger HISEY Drills shown in full detail on page 43. The intermediate gear shaft is supported with a bearing at each end. This method is vastly superior to a single bearing support as used in many machines.

OTHER IMPORTANT DETAILS ON PAGE 38.

Code Word	Type	Volts	Capacity in Steel in Inches	Speed R. P. M. No Load	Net Weight in Pounds	Length Overall with End Handle in Inches	Boxed Dimensions	
							Gross Weight in Pounds	Size of Box in Inches
WOJDG WOJEH	18CU 18CU	110 220	1/4	1400 ◊	6½	11 5/8	11	5x11x15
WUEDF WUEFG	25CU 25CU	110 220	5/16	825 *	8	12 1/2	18	5x11x16
WUEGH WUEHK	35CU 35CU	110 220	3/8	600 ‡	12	15	20	5x13x18

The above machines can be furnished for special voltages from 32 to 250 volts at 10 per cent extra.

Standard Equipment—All of the above machines are supplied with 10 feet All Rubber Conductor Cable fitted with suitable attaching plug and Drill Chuck for holding straight round shank drills from 0 up to maximum capacity of the machine.

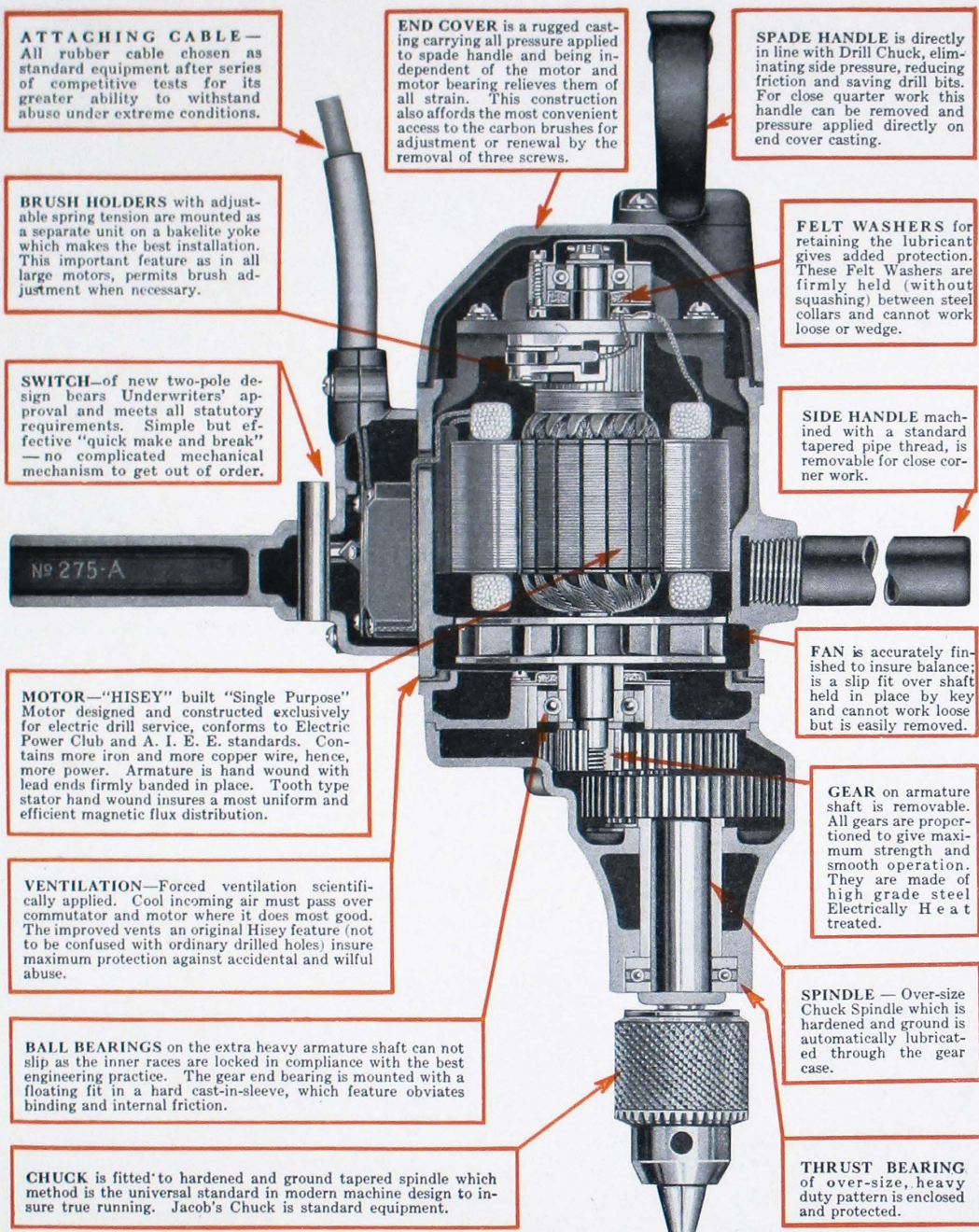
◊Can be furnished for any higher speed up to 2700 R. P. M. at 5 per cent extra.

*Can be furnished with special speed of 300 or 450 R. P. M. at 5 per cent extra.

‡Can be furnished with special speed of 350 R. P. M. at 5 per cent extra.

Keyless Drill Chuck on page 47 furnished to order at standard price.

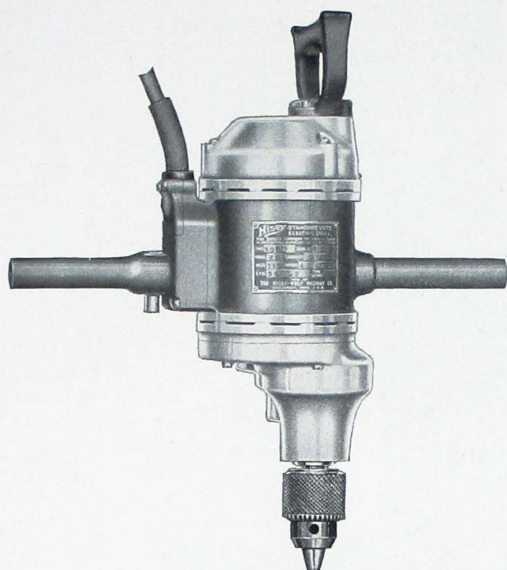
Attachments and Accessories on pages 47, 48 and 49.

"Hisey"**ELECTRIC DRILLS-GRINDERS-BUFFERS**
THE HISEY-WOLF MACHINE CO. (Est. 1896) CINCINNATI, OHIO U.S.A.**"Hisey"****"A CHAIN IS AS STRONG AS ITS WEAKEST LINK"****THERE ARE NO WEAK LINKS****IN HISEY UNIVERSAL MOTOR DRILLS****There's a difference.****Look into the construction.****Better still, make a comparison.**

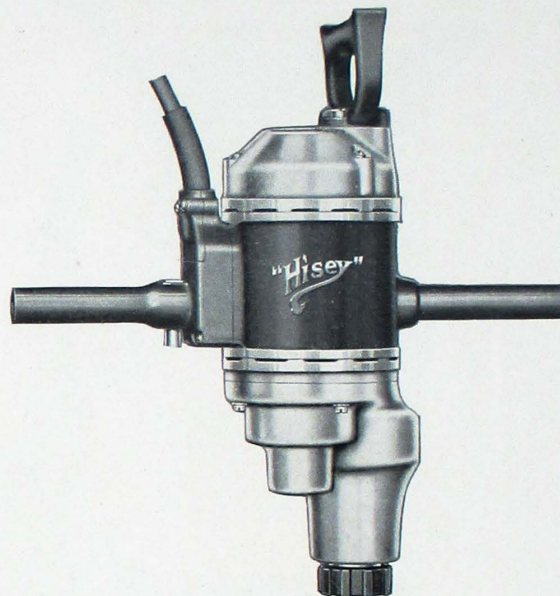
HISEY improved Universal Motor Drills are not to be considered as mere Light Duty or Special Duty Drills. They are of guaranteed rated capacity and built to withstand the abuse of unskilled hands.

HEAVY DUTY UNIVERSAL DRILLS and REAMERS

See Full Sectional Specifications on Page 43



1/2, 5/8, 3/4-INCH CAPACITY



7/8-INCH CAPACITY

Will Operate on Alternating Current and Direct Current of the same Voltage

The famous HISEY "Single Purpose" Motor with ball bearing mounting is standard equipment.

SEE IMPORTANT DETAILS ON PAGE 38.

Code Word	Type	Volts	Capacity in Steel in Inches		Size of		Speed R. P. M. No Load	Net Weight in Pounds	Machine Dimensions in Inches		Boxed Dimensions	
			Drill	Ream	Chuck	Morse Taper Socket			Length Overall with Spade Handle	Length Overall with Screw Feed Closed	Gross Weight in Pounds	Size of Box in Inches
WOKCD	50CU	110 *	1/2	.....	0 to 1/2	.....	525	18	17 1/4	19	32	9x13x22
WOKDE	50CU	220										
WOKEF	58CU	110 *	5/8	.....	1/8 to 5/8	.....	500	21	18 1/4	20	35	9x13x22
WOKFG	58CU	220										
WUAPW	75CU	110 †	3/4	7/16	3/16 to 3/4	.....	350	24	17	20	40	10x18x24
WUAPY	75CU	220										
WOKJL	78CU	110 ‡	7/8	1/2	.....	No. 2	350	25	17 1/2	20 1/2	40	10x18x24
WOKKM	78CU	220										

The above machines are standard and carried in stock.

*Can be furnished to order for special voltage from 32 to 250 volts, at 10 per cent extra.

†Can be furnished to order for special voltage from 80 to 250 volts at 10 per cent extra.

‡Special spindle speed of 300 or 400 R. P. M. can be furnished at 5 per cent extra.

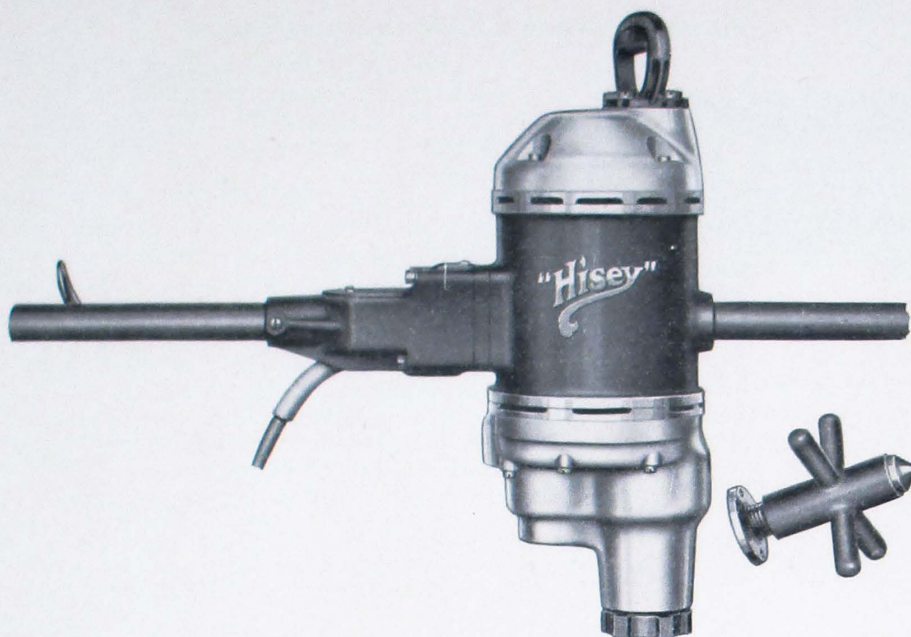
Standard Equipment—Each of the above machines are supplied with End Spade Handle and 10 feet All Rubber Conductor Cable fitted with suitable attaching plug. Screw Feed furnished to order only.

Types 50CU, 58CU and 75CU Drills are equipped with Jacob's Drill Chuck of size as listed for round shank drills. However, can be furnished with a removable No. 1 Morse Taper socket (instead of chuck) without extra charge.

Keyless Drill Chuck (page 47) furnished to order for 1/2-inch drills at standard price.

Type 78CU is equipped with a detachable Morse Taper Socket, permitting quick removal of the drill bit or reamer without the use of drift key.

Attachments and Accessories on pages 47, 48 and 49.



1 1/4 and 1 1/2 Inch Capacity

HEAVY DUTY UNIVERSAL DRILLS and REAMERS

Will Operate on Alternating Current and Direct Current of the same Voltage

The famous HISEY "Single Purpose" Universal Motor with ball bearing mounting is standard equipment. These machines are recommended for general production drilling and reaming operations.

Adetachable Morse Taper Socket is furnished with each machine, thereby permitting quick removal of the drill bit or reamer without the use of drift key.

Complete interior electrical and mechanical design (with the exception of switch) is shown in full detail on page 43.

SEE IMPORTANT DETAILS ON PAGE 38.

Code Word	Type	Volts	Capacity in Steel in Inches		Size No. Morse Taper Socket	Speed R. P. M. No Load	Net Weight in Pounds	Machine Dimensions in Inches		Boxed Dimensions	
			Drill	Ream				Length Overall with Spade Handle	Length Overall with Screw Feed Closed	Gross Weight in Pounds	Size of Box in Inches
WOKLN WOKMO	125CU 125CU	110 220	1 1/4	15/16	3	300 ‡	50	20 3/4	23 3/4	90	12x22x31
WOVEL WOVGM	150CU 150CU	110 220	1 1/2	1 1/16	4	200 *	55	21 1/2	24 1/2	95	12x22x31

The above machines are standard and usually carried in stock. They can be furnished to order for special voltages from 80 to 250 volts.

Standard Equipment—Each of the above machines are supplied with End Spade Handle, 12 feet All Rubber Conductor Cable fitted with suitable attaching plug and a removable Morse Taper Socket, as listed. Screw Feed attachment furnished to order only.

‡Can be furnished with special speed of 150, 200 or 350 R. P. M. at 5 per cent extra; also at speed of 100 R. P. M. at 10 per cent extra

*Can be furnished with special speed of 150 R. P. M. at 5 per cent extra; also at speed of 100 R. P. M. at 10 per cent extra.

Attachments and Accessories on pages 47 and 48.

"Hisey"

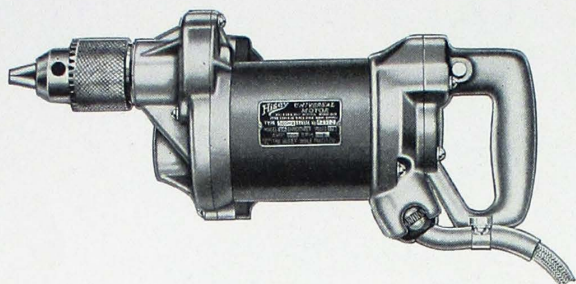
ELECTRIC DRILLS-GRINDERS-BUFFERS

THE HISEY-WOLF MACHINE CO. (Est. 1896) CINCINNATI, OHIO U.S.A.

"Hisey"

SLATE and MARBLE DRILL

Equipped with a HISEY Universal Motor



Unlike other materials, the drilling of Slate and Marble can only be accomplished at a very slow speed. This drill operates at only 140 R. P. M. at no load and has abundant power for drilling up to 1/2-inch diameter in Slate and Marble.

For drilling, an ordinary carbon steel twist drill should be ground like a chisel. A bit ground with the chisel edge at right angles to the sides will bore true to size, whereas a drill with the cutting edge on a slant will increase the hole diameter depending upon the angle.

The machine is equipped with high-grade Ball Bearings, constantly lubricated in ample size compartments. Gears

are of alloy steel, accurately machined and electrically heat-treated to insure long life and quiet operation. The switch, of ample capacity, is conveniently mounted in the end grip handle.

Code Word	Type	Volts	Capacity in Slate and Marble in Inches	Speed R. P. M. No Load	Machine Dimensions		Boxed Dimensions		Standard Equipment
					Net Weight in Pounds	Length Overall in Inches	Gross Weight in Pounds	Size of Box in Inches	
WOLSV	50SMU	110	1/2	140	11	14	16	5x11x16	1/2-inch Jacob's Drill Chuck. 10 feet All Rubber Cable with suitable Attaching Plug.
WOLTW	50SMU	220							

The above machines can be furnished to order for special voltages from 80 to 250 volts at 10 per cent extra. Sensitive Radial Arms for use with above drills shown on page 49.

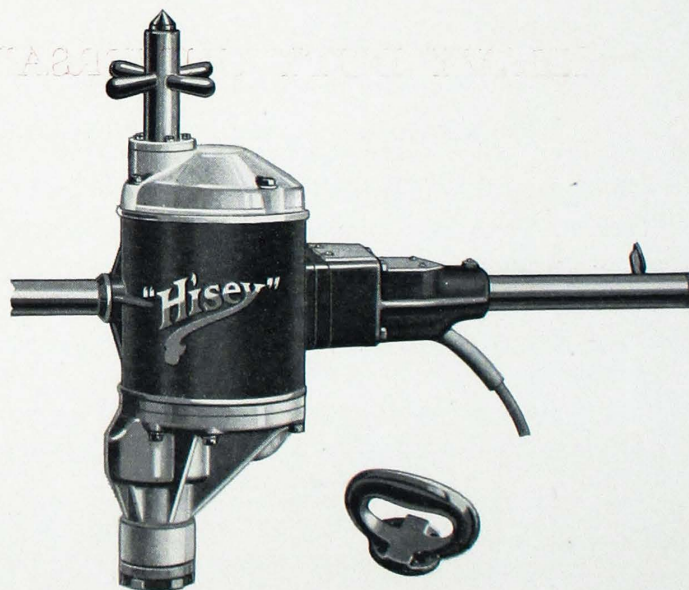
60-CYCLE ALTERNATING CURRENT DRILLS and REAMERS

1 3/4 Inch Capacity

HISEY Alternating Current Drills and Reamers are equipped with squirrel cage induction type motors regularly designed for operation from either two phase or three phase circuits. They are equipped with high grade ball bearings and with the sturdy HISEY switch.

A detachable No. 4 Morse Taper Drill Socket as listed is furnished with each machine, thereby permitting quick removal of the drill bit or reamer without the use of drift key.

SEE IMPORTANT DETAILS, PAGE 38.



Code Word	Type	Volts and Phase	Capacity in Steel in Inches		Size No. Morse Taper Socket	Speed R. P. M. No Load	Net Weight in Pounds	Machine Dimensions in Inches		Boxed Dimensions	
			Drill	Ream				Length Overall with Spade Handle	Length Overall with Screw Feed Closed	Gross Weight in Pounds	Size of Box in Inches
WOLJN	175RLA	220 V., 2 Ph.	1 3/4	1 3/16	4	110	88	23 1/4	25 3/4	150	14x24x36
WOLKO	175RLA	220 V., 3 Ph.									
WYHJK	175RLA	440 V., 2 Ph.									
WYJKL	175RLA	440 V., 3 Ph.									

Above Alternating Current Machines furnished to order for 40 cycle and 50 cycle and for special intermediate voltages from 80 to 440 volts at 10 per cent extra. Standard Equipment—Each of the above machines are supplied with End Spade Handle, 12 feet Rubber Cable and a removable Morse Taper Socket as listed. Screw Feed Attachment, furnished to order only.

ELECTRIC DRILL ATTACHMENTS and ACCESSORIES



No. 13—SPADE HANDLE

is regularly supplied with all Drills, where listed.

CODE WORD.....WOMBE



No. 12—BREAST PLATE

This attachment is interchangeable with the end or spade handle shown on the various drills and is sometimes preferred, especially where no overhead work is done.

CODE WORD.....WOMCF



No. 10—Shaft Attachment with $\frac{1}{4}$ -inch capacity chuck. CODE WORD.....WOMDG

No. 11—Shaft Attachment with 3 by $\frac{3}{8}$ -inch face wheel. CODE WORD.....WOMEH

Shaft Attachment supplied with both chuck and grinding wheel Nos. 10 and 11, which are interchangeable. CODE WORD.....WOMFJ

This Flexible Shaft Attachment fitted with shank for holding emery wheel, is very convenient for many light grinding jobs, such as cleaning metal patterns, etc. When shaft is supplied with drill chuck, it is equally as useful for many kinds of drilling jobs. Shaft is 4 feet long and $\frac{7}{8}$ -inch diameter.



No. 16—GRINDING WHEEL ATTACHMENT is a convenient accessory for use in connection with an Electric Drill. Where a limited amount of grinding is required, particularly when out on a job, such as sharpening drills, smoothing welded surfaces and uneven laps of sheet metal work, this attachment will be found of great value.

Made in two sizes.

Small size, with $4\frac{1}{2} \times \frac{1}{2}$ -inch face wheel. CODE WORD.....WOMGK

Large size, with $6 \times \frac{3}{4}$ -inch face wheel. CODE WORD.....WOMHL



No. 14—SCREW FEED

is a handy attachment when working in trench ways or other limited quarters, also allows greater efficiency when multiple drilling is required. The telescopic design, with 3-inch maximum length of travel, adds to the adaptability of the Electric Drill.

CODE WORD.....WOMIM

No. 18—DETACHABLE DRILL CHUCK



is for holding straight round shank drills, and is fitted with Morse Taper Shank to fit socket of the machine.

$\frac{1}{2}$ -inch size, with taper shank. CODE WORD.....WOMJN

$\frac{5}{8}$ -inch size, with taper shank. CODE WORD.....WOMKO

$\frac{3}{4}$ -inch size, with taper shank. CODE WORD.....WOMLP



No. 28—MULTI-SIZE HOLE SAW

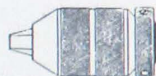
cuts clean finished round holes in sheet metal, cast iron, slate, etc. Complete with eleven blades and cuts holes from 1-inch to $3\frac{1}{2}$ inches diameter by $\frac{1}{4}$ -inch variations.

Is made with $\frac{7}{16}$ -inch diameter shank.



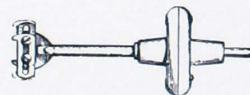
No. 31—REFILLABLE CUP WHEEL BRUSH

This 3-inch diameter brush is a great time saver in carbon cleaning and other wire brushing operations. When worn the brush proper can be reversed and renewed if necessary with refill No. 32. Furnished with $\frac{1}{4}$ -inch shank only.



No. 24—KEYLESS CHUCK

can be furnished in $\frac{1}{4}$, $\frac{5}{16}$, $\frac{3}{8}$ and $\frac{1}{2}$ -inch capacity. It is interchangeable with the Key Type Chuck of same size.



No. 29—VALVE GRINDING ATTACHMENT

This, when used in connection with an Electric Drill is a great time and labor saver. It gives the benefit of two machines at a slight extra cost.

Furnished with $\frac{1}{4}$ -inch diameter shank only.



MORSE TAPER REDUCING SLEEVES

used with Drills fitted with Morse Taper Sockets.

No. 25 has No. 1 taper hole with No. 2 shank.

No. 26 has No. 2 taper hole with No. 3 shank.

No. 27 has No. 3 taper hole with No. 4 shank.



No. 30—END SCRATCH BRUSH

This is very convenient for cleaning carbon and other similar brushing operations.

Furnished with $\frac{1}{4}$ -inch diameter shank only.

HISEY Drill Lubricant is specifically formulated for the gear case and bearing chambers and is put up in convenient one and five pound containers.

In ordering any of the above give full nameplate markings of the machine for which required.

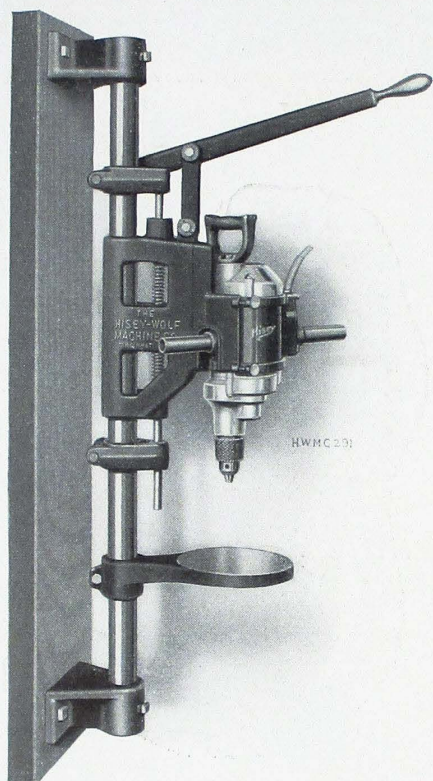
BENCH and POST DRILLING STANDS

FOR HEAVY DUTY SERVICE

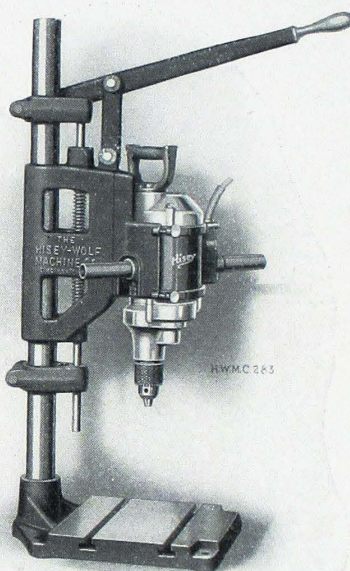
See dimensions below

The HISEY Bench and Post Drilling Stand is a very convenient accessory for use in connection with an electric drill. For general shop and production work it makes a serviceable and accurate machine, greatly increasing the usefulness of a Portable Electric Drill. It gives the benefit of two machines at a nominal additional cost.

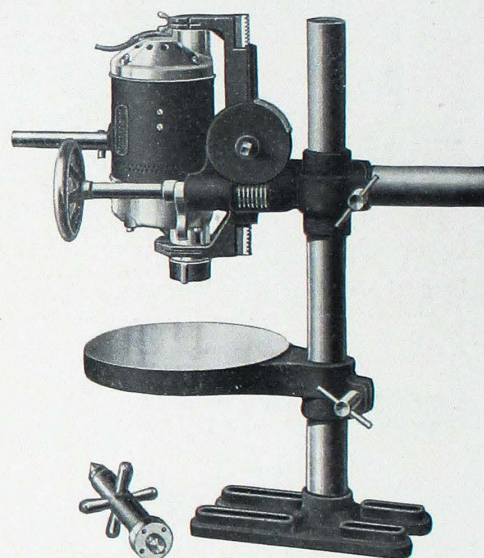
This combination makes a Portable, Sensitive Drill Press which can be operated from any lamp socket.



No. 1SP Post Drilling Stand with Lever Feed



No. 1S Bench Drilling Stand with Lever Feed



No. 2 Bench Drilling Stand with Handwheel and Worm Feed

The above Bench and Post Drilling Stands are designed so that the portable drills can be attached without removing a single part of the machine. This feature is a great time saver and a protection against loss of parts. They can be furnished for all HISEY Universal Motor Drills up to and including $\frac{7}{8}$ -inch capacity.

The above No. 2 Stand is designed for drilling at any angle as the motor drilling head can be moved in a complete circle parallel to the main column.

This can be furnished for all HISEY drills of from $\frac{5}{8}$ -inch to $1\frac{1}{4}$ -inch capacity inclusive.

GENERAL SPECIFICATIONS

Note these details when making a comparison

Dimensions Given in Inches Weight Given in Pounds	No. 1SP Post Stand	No. 1S Bench Stand	No. 2 Bench Stand
Diameter of Main Column.....	2	2	$2\frac{13}{16}$
Diameter of Cross Arm.....	.....	.....	$2\frac{1}{4}$
Net Weight.....	100	85	165
Length of Feed with one Setting.....	$4\frac{1}{2}$	$4\frac{1}{2}$	9
Maximum Feed including Column.....	16	$12\frac{1}{2}$	26
Angular or Swivel Adjustment.....	.....	.....	360°
Range, Center of Drill Spindle to Column.....	$7\frac{1}{2}$	$7\frac{1}{2}$	9 to 16
Size of Base.....	Table Diam. $9\frac{1}{4}$	10x11	Table Diam. $12\frac{1}{2}$
Shipping Weight.....	150	125	225
Boxed Dimensions.....	15x20x40	12x17x34	15x28x33
CODE WORD.....	WOKGH	WOKHJ	WOKIK

In ordering any of the above Drilling Stands separately (without Portable Drill) full name plate markings of the drill should be given.

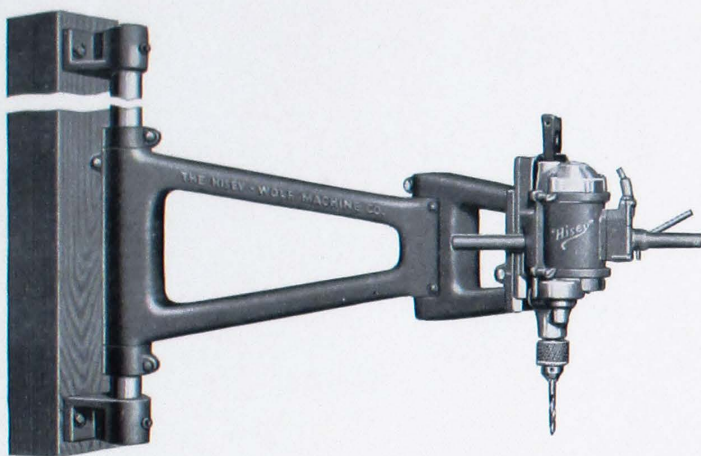
SENSITIVE RADIAL ARMS

For many operations the HISEY Radial Arm is much more convenient than a self-contained radial drill or drill press, the first cost of which is often prohibitive.

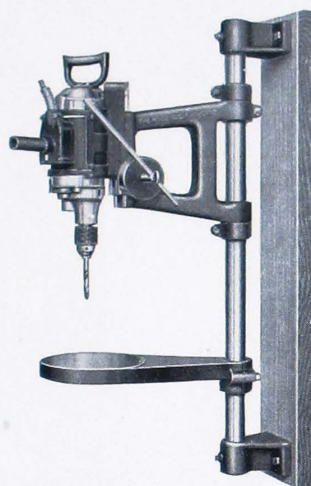
The Lever Feed is operated through rack and pinion the same as a drill press, thereby permitting a most positive and sensitive control without the slightest fatigue to the operator.

The motor holding brackets are designed so that the portable drill can be attached without removing a single part of the machine. This feature is a great time saver and a protection against loss of parts.

No. 4 DOUBLE



No. 5 SINGLE



No. 6 SINGLE



The above No. 4 Sensitive Radial Arm is mounted on a Ball Thrust Bearing (enclosed and dust proof) which reduces friction to a minimum and thereby permits quick and easy adjustment.

By means of the individual swivel clamps either the long or short arms can be locked independently, whereas if the work requires both arms can be locked in any fixed angular position.

The above Sensitive Radial Arms, No. 5 Single Post Type, and No. 6 Single Bench Type respectively, are adapted for a wide range of work.

Unlike the ordinary drill press the drilling head can be swung through an arc of more than a half circle. This feature with the adjustable drilling table greatly increases the general adaptability of these Radial Arms.

GENERAL SPECIFICATIONS

Dimensions Given in Inches Weights Given in Pounds	No. 4 Double	No. 5 Single	No. 6 Single
Vertical Adjustment (without resetting) by means of lever through rack and pinion	7 1/2	7 1/2	7 1/2
Vertical Adjustment up and down on the main column	25	19	13
Total Vertical Adjustment	32 1/2	26 1/2	20 1/2
Diameter of Main Column	2 1/2	2	2
The Full Arm Length will swing through an arc of more than a half circle of	240°	240°	360°
The Short Arm of the No. 4 size has an Angular Adjustment of	245°	.....	.....
Maximum Arm Reach from column to drill spindle	36 3/4	13	13
Net Weight	215	140	150
Shipping Weight	260	180	190
Boxed Dimensions	15x21x56	15x21x46	15x21x38
CODE WORD	WUEAB	WUEBC	WUECD

They can be furnished for all HISEY Universal Drills up to and including 7/8-inch capacity.

In ordering any of the above Sensitive Radial Arms separately (without Portable Drill) full name plate markings of the drill should be given.

TOOL POST, ANGLE PLATE and PORTABLE GRINDERS

The Motor is guaranteed to develop the name-plate horse-power rating for continuous service with a temperature rise not to exceed 40° C. on the motor windings.

Alternating Current Motors are of the squirrel cage induction type and regularly designed for 60 cycle operation from either single, two or three phase circuits. For operation from lamp socket single phase machines are required. Two and three phase machines are for operation on power circuit lines.

Direct Current machines are equipped with compound wound motors designed especially for the service. They have large box type brush holders and oversize commutators with liberal brush area affording long life.

Universal Motor Grinders will operate equally as well on either direct current or single phase alternating current up to 60 cycles. They are particularly adapted for 25 cycle single phase service, as they operate at effective grinding speeds not obtainable with strictly alternating current motors at this low frequency. Designed for operation from lamp socket.

Bearings—Tool Post and Angle Plate Grinders. The bronze bearing on the wheel end is cone-shaped to such a degree that it can be readily adjusted in either direction; loosened or tightened without danger of the bearing freezing to the shaft.

In adjusting, the two bearing spreading screws are backed out two or three turns after which bearing can be easily adjusted by turning the compensating nut by means of Adjusting Pin. After bearing is satisfactorily adjusted the two spreading screws are firmly screwed back into place thus insuring full and uniform bearing surfaces.

Bearings—Portable Aerial Grinders. Motor is Ball Bearing equipped while Grinding Spindle is fitted with two adjustable Timken Roller Bearings. All bearings are mounted so that machine can be used in any position, and are completely enclosed and dust-proof.

Grinding Wheels regularly furnished are of such grade and grain as our long experience has proven best adapted for each size machine. For best results it is necessary that the proper wheel be used and if a description of the work is given we will supply wheels best suited.

Direction of Rotation is normally left-hand (counter clockwise) when facing grinding wheel end.

This, combined with the fact that the wheel arbor is made with right-hand thread, will cause any slippage of the grinding wheel on the shaft to tighten the nut.

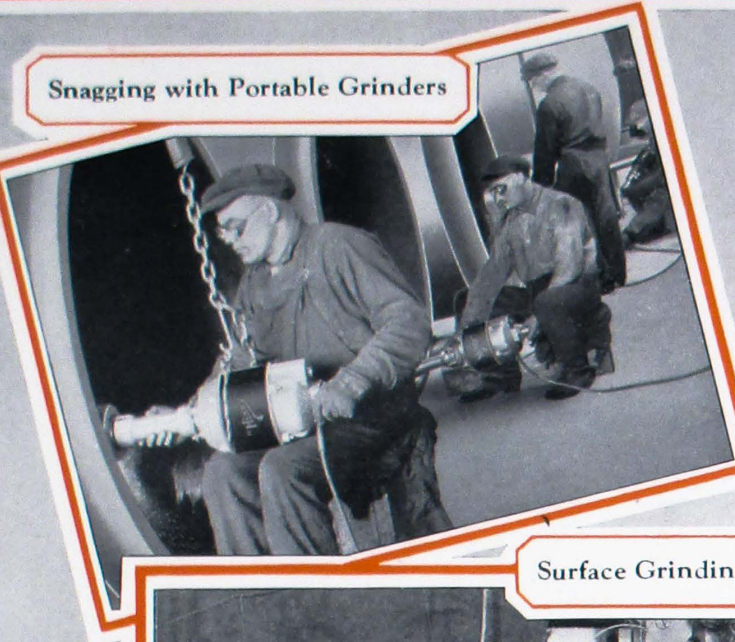
The motors are designed to run in either direction; however, when reversed, extreme care should be taken to guard against the wheel nut working loose.

When so ordered, grinders can be supplied to run in right-hand direction (clockwise) and in this way are made with left-hand thread on the wheel arbor.

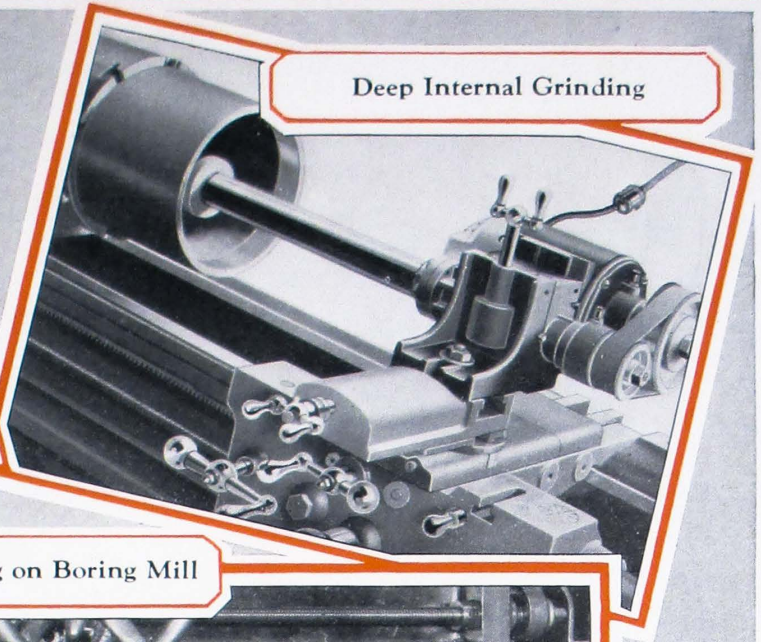
Machines on pages 61, 62 and 63 run in right-hand (clockwise) direction when facing grinding wheel end and are otherwise designed accordingly.

Ground Wire an integral part of conductor can be furnished for wiring systems with a ground circuit. Three wire cables can be furnished with standard three pole connector, also cables with extra ground conductor for two or three phase machines at regular prices.

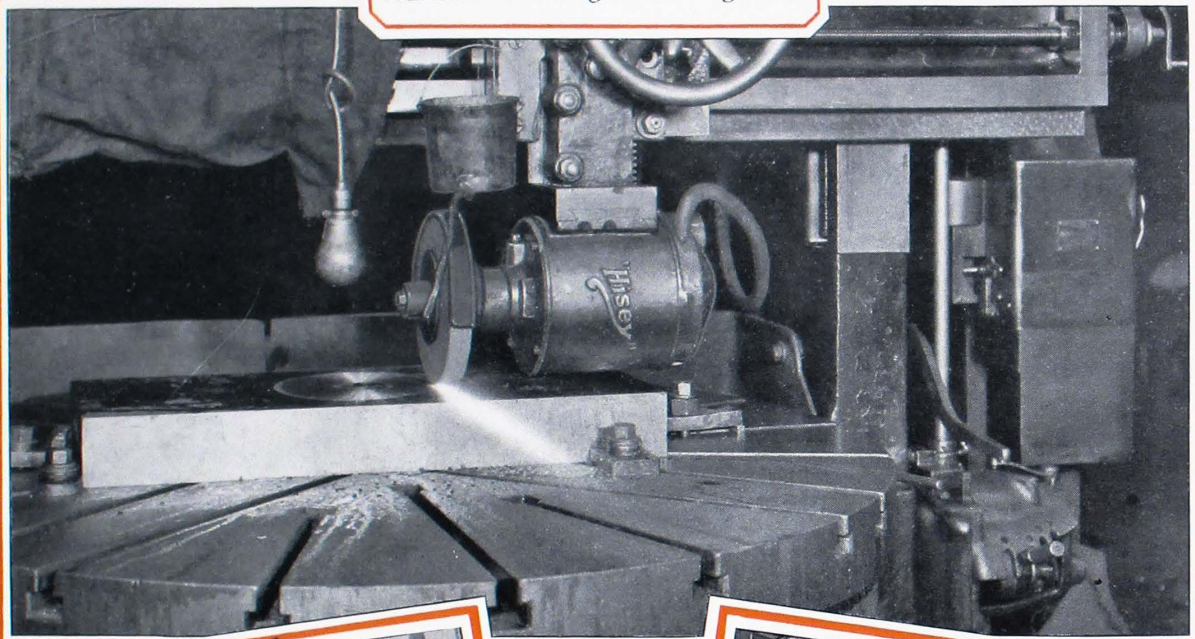
Snagging with Portable Grinders



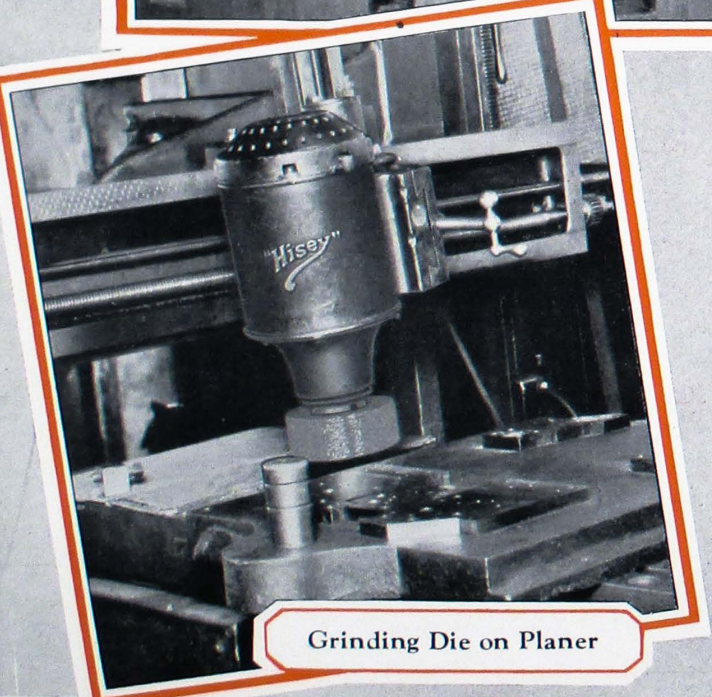
Deep Internal Grinding



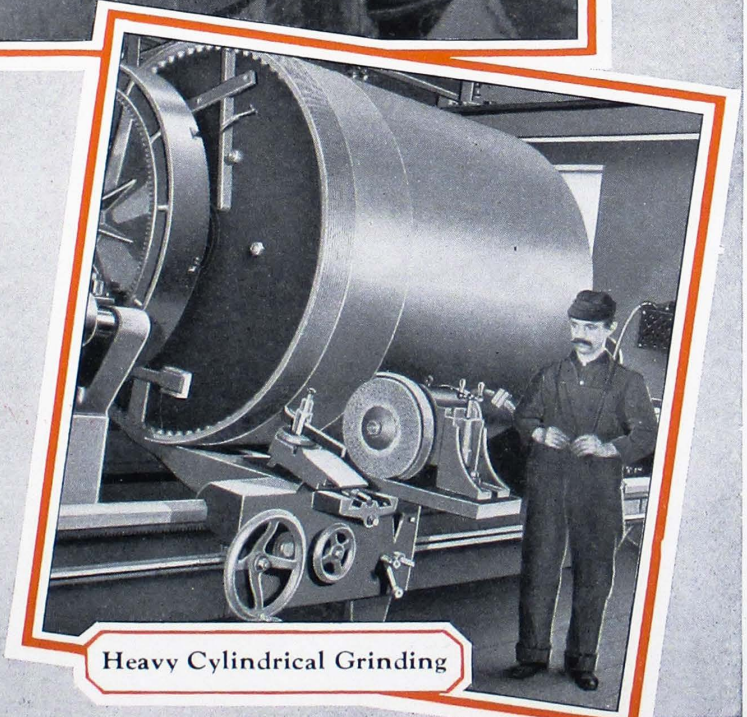
Surface Grinding on Boring Mill



Grinding Die on Planer



Heavy Cylindrical Grinding

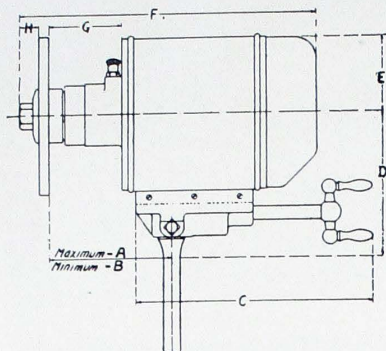


"Hisey"**ELECTRIC DRILLS-GRINDERS-BUFFERS**

THE HISEY-WOLF MACHINE CO. (Est. 1896) CINCINNATI, OHIO U.S.A.

"Hisey"**TOOL POST GRINDERS**

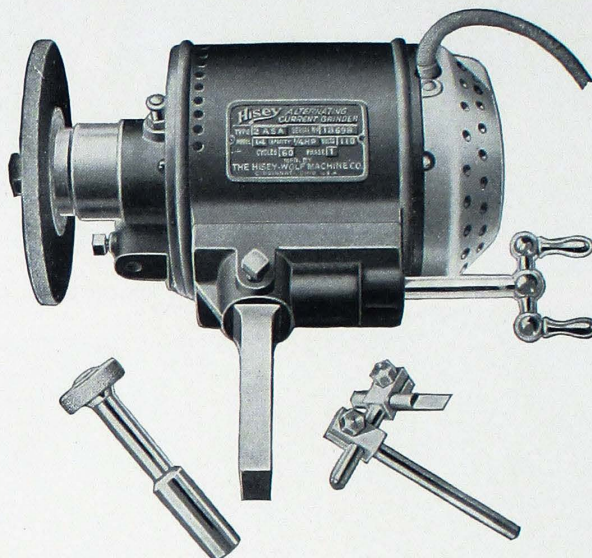
WITH HORIZONTAL SLIDE ADJUSTMENT



DIMENSIONS IN INCHES

Type	A	B	C	D	E	F	G	H
2ASA	6 3/4	2 1/4	8 3/4	5 1/2	2 7/8	11 1/4	2 3/4	13 1/16
3ASA	7 1/2	2 1/4	11 1/4	6 1/8	3 1/2	13	3 1/4	1
2ASD	6	2	8 3/4	4 13/16	2 1/4	11 1/4	2 3/4	13 1/16
3ASD	7 1/2	2 1/4	11 1/4	5 1/2	3	14 1/2	3 1/4	1
2ASU	6 1/4	2	8 3/4	5	2 5/8	11 5/8	2 3/4	13 1/16

Tool Post Bar and Internal Grinding Attachment
can be supplied to special dimensions.
See Important Details on page 50.
Wheel Guard can be supplied to order.

**60 CYCLE ALTERNATING CURRENT**

Code Word	Type	Volts	H.P.	Speed R.P.M. No Load	Size of Wheel in Inches	Slide Travel in Inches	Size Tool Post Bar in Inches	Weight in Pounds		Boxed Dimensions in Inches	Standard Equipment Dimensions in Inches
								Net	Gross		
WOMMQ WOMOR WOMPS	2ASA 2ASA 2ASA	110 V., 1 Ph. 220 V., 1 Ph. 220 V., 3 Ph.	1/4	3400	6x3/8x 1/2 hole	4 1/2	5/8x1	26	40	9x13x14	Grinding Wheel as listed. Tooth Rest Grinding Attachment. Switch and 7 feet Rubber Cable with Plug.
WOMRT WOMSU WOMTV	3ASA 3ASA 3ASA	110 V., 1 Ph. 220 V., 1 Ph. 220 V., 3 Ph.	1/2	3400	8x1/2x 5/8 hole	5 1/4	3/4x1 1/4	45	75	12x17x20	INTERNAL GRINDING ATTACHMENT Length Diam. Wheel 4 1/2 3/4 1 1/2 x 3/8 x 3/8 5 3/4 1 2 x 1 1/2 x 1/2

Single phase grinders are for connecting to lamp socket. Three phase machines are for connecting to power circuit lines only.
The above machines can be supplied to order for 50 cycle frequency, also for two phase service and for special voltages from 80 to 250 volts at 10 per cent extra.

DIRECT CURRENT

WOMUW	2ASD	115	1/4	4500	4 1/2 x 3/8 x 1/2 hole	4	5/8x1	19	30	8x12x14	Grinding Wheel as listed. Balance as above Type 2ASA.
WONAC	2ASD	230									
WONBE	3ASD	115	1/2	3000	8x1/2x 5/8 hole	5 1/4	3/4x1 1/4	38	70	12x17x20	Grinding Wheel as listed. Balance as above Type 3ASA.
WONCF	3ASD	230									

The above Direct Current Grinders can be furnished to order for special voltages from 80 to 250 volts at 10 per cent extra.

UNIVERSAL MOTOR GRINDER

Will Operate on Alternating Current and Direct Current of the same Voltage

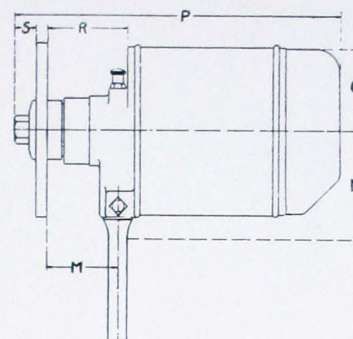
They are particularly adapted for 25 cycle and 40 cycle single phase alternating current, as they operate at effective grinding speeds not obtainable with induction type alternating current motors at these low frequencies.

WONNT	2ASU	110	Load Speed	4x3/8x 1/2 hole	4 1/4	5/8x1	19	35	8x12x14	Grinding Wheel as listed. Balance as above Type 2ASA.
WONOU	2ASU	220	4800							

The above Universal Grinders can be furnished to order for special voltages from 80 to 250 volts at 10 per cent extra.

TOOL POST GRINDERS

WITHOUT SLIDE ADJUSTMENT



DIMENSIONS IN INCHES

Type	M	N	O	P	R	S
2AA	2 3/8	3 3/4	2 7/8	11 1/4	2 3/4	1 5/16
3AA	2 15/16	4 1/8	3 1/2	13	3 1/4	1
2AD	2 3/4	3 1/8	2 1/4	11 1/4	2 3/4	1 5/16
3AD	2 15/16	3 3/4	3	14 1/2	3 1/4	1
2AU	2 3/8	3 1/8	2 5/16	11 5/8	2 3/4	1 5/16

Tool Post Bar and Internal Grinding Attachment can be supplied to special dimensions.
 See Important Details on page 50.
 Wheel Guard can be supplied to order.

60 CYCLE ALTERNATING CURRENT

Code Word	Type	Volts	H. P.	Speed R.P.M. No Load	Size of Wheel in Inches	Size Tool Post Bar in Inches	Weight in Pounds		Boxed Dimensions in Inches	Standard Equipment Dimensions in Inches
							Net	Gross		
WONDG WONEH WONFJ	2AA 2AA 2AA	110 V., 1 Ph. 220 V., 1 Ph. 220 V., 3 Ph.	1/4	3400	6x3/8x 1/2 hole	5/8x1	22	35	9x13x14	Grinding Wheel as listed. Tooth Rest Grinding Attachment. Switch and 7 feet Rubber Cable with Plug.
WONGK WONHL WONIO	3AA 3AA 3AA	110 V., 1 Ph. 220 V., 1 Ph. 220 V., 3 Ph.	1/2	3400	8x1/2x 5/8 hole	3/4x1 1/4	40	70	12x17x20	INTERNAL GRINDING ATTACHMENT Length Diam. Wheel 2AA 4 1/2 3/4 1 1/2x3/8x3/8 3AA 5 3/4 1 2 x1 1/2x1 1/2

Single phase Grinders are for connecting to lamp socket. Three phase machines are for connecting to power circuit lines only.
 The above Grinders can be supplied to order for 50 cycle frequency, also for two phase service and for special voltages from 80 to 250 volts at 10 per cent extra.

DIRECT CURRENT

WONJP WONKQ	2AD 2AD	115 230	1/4	4500	4 1/2x3/8x 1/2 hole	5/8x1	15	30	8x12x14	Grinding Wheel as listed. Balance as above Type 2AA.
WONLR WONMS	3AD 3AD	115 230	1/2	3000	8x1/2x 5/8 hole	3/4x1 1/4	33	60	12x17x20	Grinding Wheel as listed. Balance as above Type 3AA.

The above Direct Current Grinders can be furnished to order for special voltages from 80 to 250 volts at 10 per cent extra.

UNIVERSAL MOTOR GRINDER

Will Operate on Alternating Current and Direct Current of the Same Voltage

They are particularly adapted for 25 cycle and 40 cycle single phase alternating current, as they operate at effective grinding speeds not obtainable with induction type alternating current motors at these low frequencies.

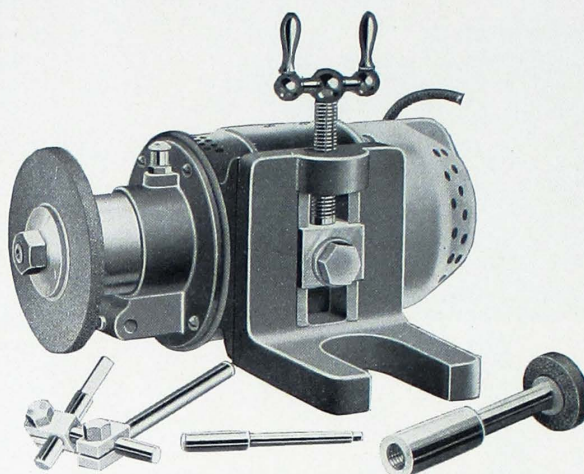
WONPY WONRW	2AU 2AU	110 220	Load Speed 4800	4x3/8x 1/2 hole	5/8x1	15	30	8x12x14	Grinding Wheel as listed. Balance as above Type 2AA.
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The above Universal Grinders can be furnished to order for special voltages from 80 to 250 volts at 10 per cent extra.

1/4 H. P. ANGLE PLATE GRINDERS

WITH COMBINATION VERTICAL AND SWIVEL SLIDE

SEE IMPORTANT DETAILS, PAGE 50



Wheel Guard can be supplied to order
 Overall Dimensions given on Page 57

60 CYCLE ALTERNATING CURRENT

Code Word	Type	Volts	H.P.	Speed R.P.M. No Load	Size of Wheel in Inches	Slide Travel in Inches	Weight in Pounds		Boxed Dimensions in Inches	Standard Equipment
							Net	Gross		
WOORS	2BA	110 V., 1 Ph.	1/4	3500	6x3 3/8 1/2 hole	1 3/4	36	47	9x14x15	External Grinding Wheel as listed. Internal Grinding Attachment, 4 1/2" long by 3/4" diameter, equipped with grinding wheel, 1 1/2" x 3/8" x 3/8" hole. Tooth Rest Grinding Attachment. Reinforced Electrical Cable, 7 feet long, with attaching plug. Quick-acting switch.
WOOST	2BA	220 V., 1 Ph.								
WOOVW	2BA	220 V., 3 Ph.								

Single phase Grinders are for connecting to lamp socket. Three phase machines are for connecting to power circuit lines only.
 The above Grinders can be supplied to order for 50 cycle frequency, also for two phase service and for special voltages from 80 to 250 volts at 10 per cent extra.

DIRECT CURRENT

WOOWX	2BD	115	1/4	4500	4 1/2 x 3 3/8 1/2 hole	1 3/4	22	40	9x14x15	External Grinding Wheel as listed. Internal Grinding Attachment, 4 1/2" long by 3/4" diameter, equipped with grinding wheel, 1 1/2" x 3/8" x 3/8" hole. Tooth Rest Grinding Attachment. Reinforced Electrical Cable, 7 feet long, with attaching plug. Quick-acting switch.
WOXY	2BD	230								

The above Direct Current Grinders can be furnished to order for special voltages from 80 to 250 volts at 10 per cent extra.

UNIVERSAL MOTOR GRINDER

Will Operate on Alternating Current and Direct Current of the same Voltage

They are particularly adapted for 25 cycle and 40 cycle single phase alternating current, as they operate at effective grinding speeds not obtainable with induction type alternating current motors at these low frequencies.

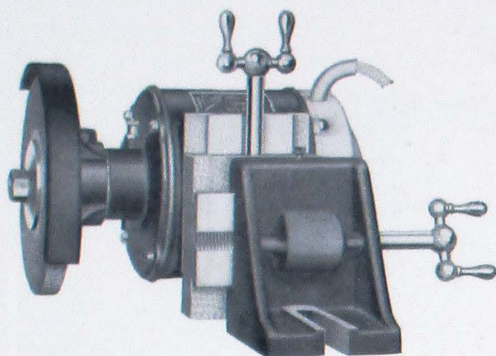
WOYZ	2BU	110	Speed R. P. M. Normal Load 4800	4x3 3/8 1/2 hole	1 3/4	27	35	9x14x15	External Grinding Wheel, as listed. Internal Grinding Attachment, 4 1/2" long by 3/4" diameter, equipped with grinding wheel 1 1/2" x 3/8" x 3/8" hole. Tooth Rest Grinding Attachment. Reinforced Electrical Cable, 7 feet long, with attaching plug. Quick-acting switch.
WOPAC	2BU	220							

The above Universal Grinders can be furnished to order for special voltages from 80 to 250 volts at 10 per cent extra.

1/2 and 1 H. P. ANGLE PLATE GRINDERS

SEE IMPORTANT DETAILS, PAGE 50

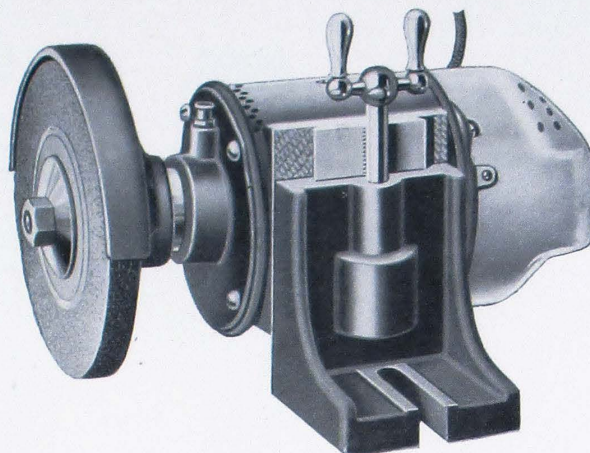
Overall Dimensions on Page 57



TYPE 3BWA, 4BWA, 3BWD and 4BWD

WITH DOUBLE SLIDE ADJUSTMENT

Both slides operate independently, which feature permits quick and accurate adjustments to the work.



TYPE 3BA, 4BA, 3BD and 4BD

WITH VERTICAL SLIDE ADJUSTMENT

60 CYCLE ALTERNATING CURRENT

WITH VERTICAL SLIDE

Code Word	Type	Volts	H.P.	Speed R.P.M. No Load	Size of Wheel in Inches	Slide Travel in Inches	Weight in Pounds		Boxed Dimensions in Inches	Standard Equipment
							Net	Gross		
WOPBE WOPDF WOPEG	3BA 3BA 3BA	110 V., 1 Ph. 220 V., 1 Ph. 220 V., 3 Ph.	1/2	3400	8x 3/4 5/8 hole	4 1/2	60	90	12x17x20	Grinding Wheel, as listed. Reinforced Electrical Cable, 7 feet long, with separable fused plug. Quick-acting switch. Wheel Guard.
†WOPFH †WOPGJ †WOPHK	4BA 4BA 4BA	110 V., 1 Ph. 220 V., 1 Ph. 220 V., 3 Ph.	1	1750	10x1 3/4 hole	5	115	150	16x16x26	

WITH DOUBLE SLIDE

WOSMR WOSNS WOSOT	3BWA 3BWA 3BWA	110 V., 1 Ph. 220 V., 1 Ph. 220 V., 3 Ph.	1/2	3400	8x 3/4 5/8 hole	5 1/2 Vert. 4 3/4 Horiz.	68	100	15x17x18	Grinding Wheel, as listed. Reinforced Electrical Cable, 7 feet long, with separable fused plug. Quick-acting switch. Wheel Guard.
†WYKLM †WYLNQ †WYMOQ	4BWA 4BWA 4BWA	110 V., 1 Ph. 220 V., 1 Ph. 220 V., 3 Ph.	1	1750	10x1 3/4 hole	5 1/2 Vert. 5 Horiz.	130	170	18x18x30	

†Furnished to special order—For 40 cycle service at speed 2400 R. P. M. at 1 1/2 H. P.

For 25 cycle service at speed 1500 R. P. M. at 3/4 H. P. at 10 per cent extra.

The above Grinders can be supplied to order for 50 cycle frequency, also for two phase service and for special voltages from 80 to 550 volts at 10 per cent extra

DIRECT CURRENT

WITH VERTICAL SLIDE

WOPIL WOPJM	3BD 3BD	115 230	1/2	3000	8x 3/4 5/8 hole	4 1/2	55	85	12x16x19	Grinding Wheel, as listed. Reinforced Electrical Cable, 7 feet long, with separable fused plug. Quick-acting switch. Wheel Guard.
WOPKN WOPLO	4BD 4BD	115 230	1	2100	10x1 3/4 hole	5	100	145	16x16x26	

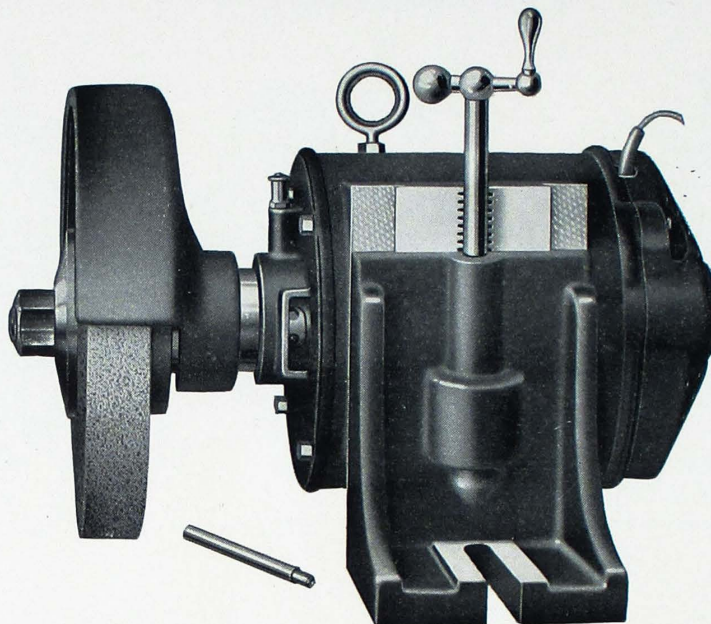
WITH DOUBLE SLIDE

WOSPU WOSRV	3BWD 3BWD	115 230	1/2	3000	8x 3/4 5/8 hole	5 1/2 Vert. 4 3/4 Horiz.	63	95	15x17x18	Grinding Wheel, as listed. Reinforced Electrical Cable, 7 feet long, with separable fused plug. Quick-acting switch. Wheel Guard.
WYOPQ WYPQR	4BWD 4BWD	115 230	1	2100	10x1 3/4 hole	5 1/2 Vert. 5 Horiz.	115	160	18x18x30	

The above Direct Current Grinders can be furnished to order for special voltages from 80 to 250 volts at 10 per cent extra.

"Hisey"**ELECTRIC DRILLS-GRINDERS-BUFFERS**
THE HISEY-WOLF MACHINE CO. (Est. 1896) CINCINNATI, OHIO U.S.A.**"Hisey"****3, 5 and 7½ H. P. ANGLE PLATE GRINDERS**

WITH VERTICAL SLIDE ADJUSTMENT



OVERALL DIMENSIONS GIVEN ON PAGE 57, IMPORTANT DETAILS ON PAGE 50.

60 CYCLE ALTERNATING CURRENT

Code Word	Type	Volts	H.P.	Speed R.P.M. No Load	Size of Wheel in Inches	Slide Travel in Inches	Weight in Pounds		Boxed Dimensions in Inches	Standard Equipment
							Net	Gross		
WOPMP WOPNQ	6BA 6BA	220 V., 3 Ph. 440 V., 3 Ph.	3	1700	14x1½ 1¼ hole	9	280	380	18x28x30	Grinding Wheel, as listed. Reinforced Electrical Cable, 8 feet long. Safety motor starter. Wheel Guard.
WYQRS WYRST	7BA 7BA	220 V., 3 Ph. 440 V., 3 Ph.	5	1150 *	18x2 1½ hole	6	550	700	20x30x35	Reinforced Electrical Cable, 8 feet long. Safety motor starter. Wheel Guard. Grinding Wheel to order only.
WOPOR WOPPS	8BA 8BA	220 V., 3 Ph. 440 V., 3 Ph.	7½	1150 *	20x3 1½ hole	6	775	950	20x30x30	Reinforced Electrical Cable, 8 feet long. Safety motor starter. Wheel Guard. Grinding Wheel to order only.

The above machines can be furnished to special order at 10 per cent extra as follows:

For special voltage up to 550 volts.

*At speed of 1750 R. P. M. and as such recommended for 14-inch wheel.

Type 6BA—For 40 cycle service at speed 1200 R. P. M.

For 25 cycle service at speed 1500 R. P. M.

Types 7BA and 8BA—For 40 cycle service at speed 1200 R. P. M.

For 25 cycle service at speed 1500 R. P. M.

Above Grinders can be supplied for 50 cycles and for 2 phase service at no extra charge.

DIRECT CURRENT

††WOPRT ††WOPSU	6BD 6BD	115 230	3	1600	14x1½ 1¼ hole	9	300	400	18x28x30	Grinding Wheel, as listed. Reinforced Electrical Cable, 8 feet long. Safety motor starter. Wheel Guard.
WOPTV WOPUW	8BD 8BD	115 230	7½	1150	20x3 1½ hole	5½	775	950	20x30x40	Reinforced Electrical Cable, 8 feet long. Safety motor starter. Wheel Guard. Grinding Wheel to order only.

Can be supplied to special order for any higher voltage up to 250 volts at 10 per cent extra

WIDE RANGE ANGLE PLATE

Patented March 12, 1918. No. 1259131.

Can be furnished for HISEY Angle Plate Grinders as shown and described on pages 54, 55 and 56.

This new design of Angle Plate greatly increases the adaptability of any Parallel or Roll Grinder.

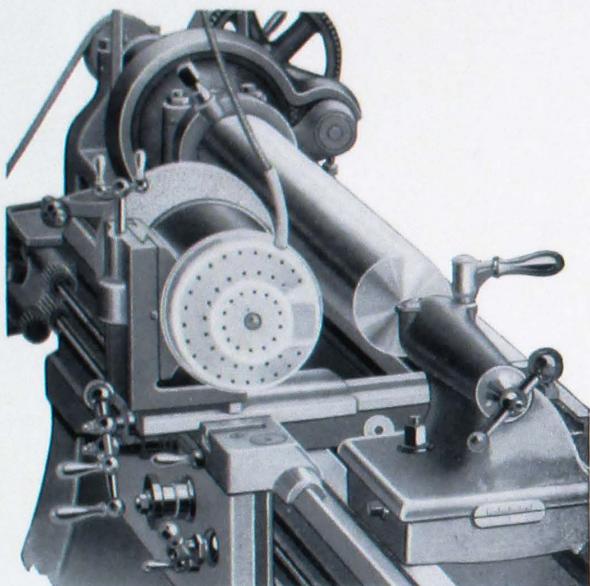
This Attachment permits the grinding wheel to be operated at maximum distance from the lathe centers and increases the grinding capacity of any lathe.

The underslung base is clamped to the cross feed slide and can be swiveled at any angle.

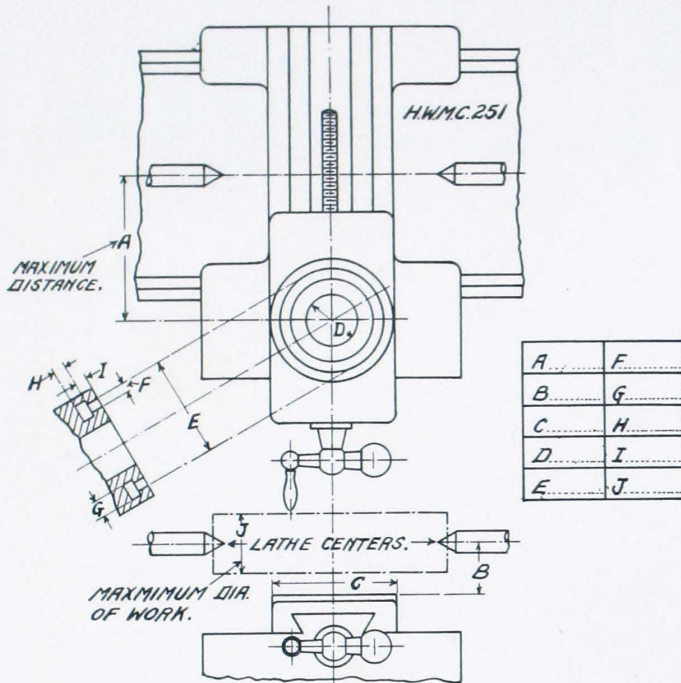
As the grinding wheel is mounted in closest proximity to the base of the Angle Plate, a most rigid support is obtained.

This Wide Range Angle Plate is provided with necessary handle and worm for vertical adjustment of the grinding wheel.

The interchangeable dovetail slide of the motor permits the use of either type of Angle Plate.

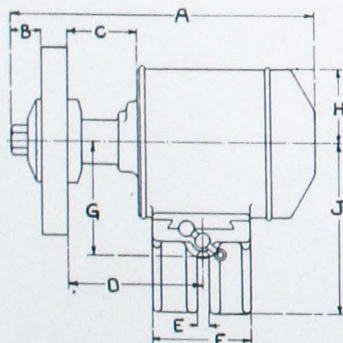


Wide Range Angle Plate fitted with 1 H. P. Grinder, carrying a 10-inch grinding wheel, grinding a 6-inch roll in a lathe with an 18-inch swing.



The above dimensions are required with order. Angle Plate will be made and machined to dimensions as given.

ANGLE PLATE GRINDER DIMENSIONS IN INCHES



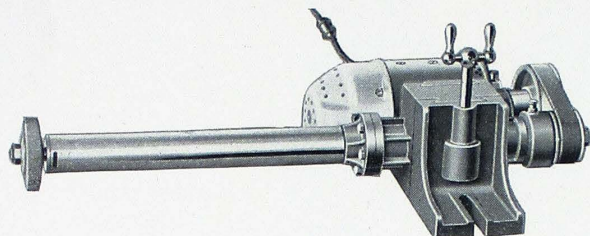
Type	H.P.	Page	A	B	C	D	E	F	G	H	J
2BA	1/4	54	12	3/4	2 7/8	5 5/16	1 7/8	3 7/8	4 5/8	2 7/8	7 1/2
2BD	1/4	54	11 1/4	3/4	2 3/4	5	1 7/8	3 7/8	3 7/8	2 5/16	6 3/4
2BU	1/4	54	11 3/4	3/4	2 3/4	5 1/4	1 7/8	3 7/8	4 1/8	2 5/16	7
*2BXA	1/4	59	12	3/4	2 7/8	5 5/16	1 7/8	3 7/8	4 5/8	2 7/8	7 1/2
*2BXD	1/4	59	11 1/4	3/4	2 3/4	5	1 7/8	3 7/8	3 7/8	2 5/16	5 3/4
3BA	1/2	55	13 1/4	1	3 3/8	6 3/8	3/4	4 3/4	5 1/8	3 1/2	8 5/8
3BD	1/2	55	14 7/8	1	3 3/8	6 3/8	3/4	4 3/4	4 1/8	3	8 1/16
*3BXA	1/2	59	14	1	3 3/8	6 3/8	3/4	4 3/4	5 1/8	3 1/2	8 5/8
*3BXD	1/2	59	14 7/8	1	3 3/8	6 3/8	3/4	4 3/4	4 1/8	3	8 1/16
3BWA	1/2	55	13 1/4	1	3 3/8	6 3/8	3/4	4 3/4	7	3 1/2	10
3BWD	1/2	55	14 7/8	1	3 3/8	6 3/8	3/4	4 3/4	6 3/4	3	9 3/4
4BWA	1	55	16 1/4	1 5/16	4	7 1/16	3/4	5 3/4	7 5/8	4	11 7/8
4BWD	1	55	18 1/2	1 5/16	4	7 1/16	3/4	5 3/4	7 5/8	4	11 7/8
4BA	1	55	16 1/4	1 5/16	4	7 1/16	3/4	5 3/4	5 1/16	3 15/16	10 1/16
4BD	1	55	18 1/2	1 5/16	4	7 1/16	3/4	5 3/4	5 1/16	3 15/16	10 1/16
*4BXA	1	59	16 1/4	1 5/16	4	7 1/16	3/4	5 3/4	5 1/16	3 15/16	10 1/16
*4BXD	1	59	18 1/2	1 5/16	4	7 1/16	3/4	5 3/4	5 1/16	3 15/16	10 1/16
4VA	1	60	20 1/4	5	10	7/8	7/16	7 1/4	6 1/2	4	11
5VA	2	60	21 3/8	5	10 5/16	7/8	7/16	7 1/4	6 1/2	4	11
6BA	3	56	22 5/8	2 1/16	5 3/8	9 7/8	7/8	7 1/4	8 1/8	5 1/2	12 5/8
6BD	3	56	22 1/16	2 1/16	5 3/8	9 7/8	7/8	7 1/4	8 1/8	5 1/2	12 5/8
6VD	3	60	20 3/4	3 1/4	9 1/2	7/8	7/16	7 1/4	7 3/4	6 1/2	13 3/4
7VA	5	60	27	5	12 1/4	10	12	12	12	6 1/2	16 1/4
8VA	7 1/2	60	28	5	12 1/2	10	12	12	12	7	16 1/4
7BA	5	56	27 1/2	2 1/8	5 1/2	12 3/4	12	12	12	6 1/2	16 1/4
8BA	7 1/2	56	32 3/8	2	7 3/8	12 3/4	12	12	12	7	16 1/4
8BD	7 1/2	56	32 3/8	2	7 3/8	12 3/4	12	12	12	7	24

*Dimensions when set up for external grinding.

COMBINATION INTERNAL and EXTERNAL GRINDERS

Patented, March 12, 1918

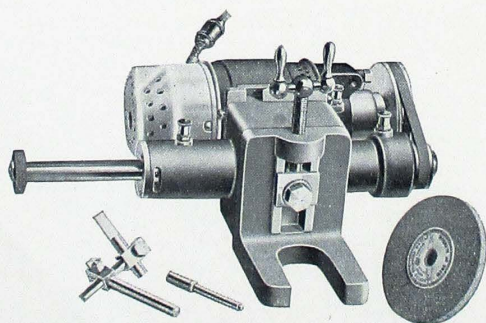
These machines are designed for a wide range of accurate work. For internal grinding, the angle plate is clamped to the compound rest of the machine on which the grinder is to be used. As the angle plate is fitted directly to the extension housing nearest the work shaft, a most rigid support is obtained. This design affords ample working space for the operator, giving full view and access to the work, as the motor is mounted in back of the extension spindle. The dove-tail engagement of the extension and motor housing permits the tightening or loosening of the belt by raising or lowering the motor. The angle plate fitted to the extension housing permits vertical adjustment of the grinding wheel operated by a handle conveniently located.



"HISEY" combination grinder (at right) with extension removed and with angle plate fitted directly to housing for external and surface grinding of all kinds when used in connection with a lathe, planer, milling machine or boring mill.

This feature converts the machine into a compact direct connected grinder and affords additional advantages as the proper grinding speed is obtained without the use of pulleys or belt. The vertical slide adjustment feature operated by handle is still maintained.

The unit construction feature of this combination grinder is unique. It is a precision grinder for both internal and external work, its accuracy being indefinitely maintained no matter how often interchanged.



A REAL TOOL ROOM GRINDER

For Internal and External Grinding

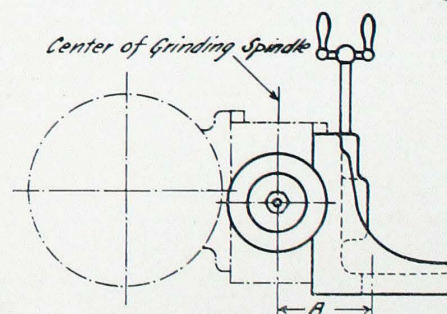
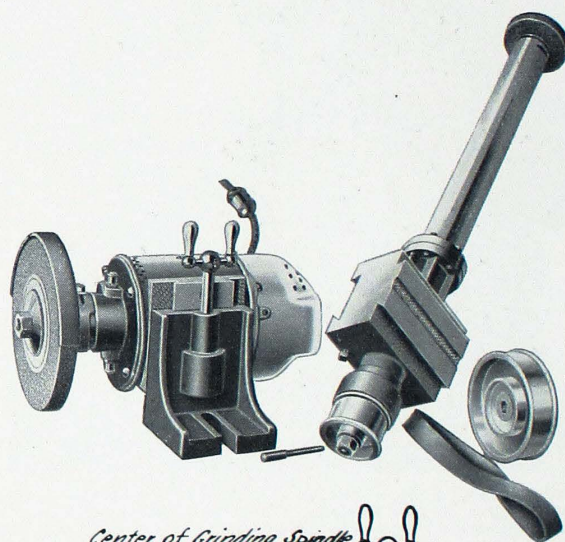
$\frac{1}{4}$ H. P. machines types 2BXD and 2BXA described on opposite page 59.

Shown for external grinding with extension removed on page 54.

ELECTRIC PRECISION GRINDER For Internal and External Grinding

$\frac{1}{2}$ and 1 H. P. machines described on opposite page 59.

Note—These $\frac{1}{2}$ and 1 H. P. Grinders can be supplied to order with special extension similar to that furnished with small Grinder shown in lower left hand corner.



The patented design of "HISEY" Combination Grinders affords minimum mounting space, thereby making all sizes adapted for use in small and large lathes.

Internal grinding can be done on any lathe up to the full swing of the lathe.

Mounting space "A"

For $\frac{1}{4}$ H. P. Grinders $2\frac{5}{8}$ inches.

For $\frac{1}{2}$ H. P. Grinders $2\frac{11}{16}$ inches.

For 1 H. P. Grinders $3\frac{11}{16}$ inches.

COMBINATION INTERNAL and EXTERNAL GRINDERS

SPECIFICATIONS AND EQUIPMENT DIMENSIONS IN INCHES	ALTERNATING CURRENT 60 CYCLE			DIRECT CURRENT		
	TYPE 2BXA ¼ H. P.	TYPE 3BXA ½ H. P.	TYPE 4BXA 1 H. P.	TYPE 2BXD ¼ H. P.	TYPE 3BXD ½ H. P.	TYPE 4BXD 1 H. P.
FOR INTERNAL GRINDING						
Size of Grinding Wheel.....	1½x¾x¾	3½x1½x1½	4x1½x1½	1½x¾x¾	3½x1½x1½	4x1½x1½
Standard extension will grind to a depth of...	4	16	17	4	15	15
Special length extensions to order.						
Shorter than listed standard, 10% extra.						
Longer and up to listed maximum 15% extra.	6	23	26	6	22	24
Smallest diameter hole that can be ground....	13/16	21/8	21/8	13/16	21/8	21/8
Speed of extension at no load, R. P. M.....	9000	6000	4000	10000	6000	5500
Special slower speeds furnished to order.						
Slide Travel, in inches.....	1¾	4½	5	1¾	4½	5
Mounting space. Distance, center of shaft to slot in angle plate, see line cut, page 58.	25/8	211/16	311/16	25/8	211/16	311/16
Net weight, in pounds.....	37	82	165	30	80	150
Gross weight, in pounds.....	52	130	225	45	130	210
Boxed dimensions, in inches.....	10x14x19	13x16x37	18x22x45	10x14x19	13x16x37	18x22x45
FOR EXTERNAL GRINDING						
Overall Dimensions on page 57.						
Size of Grinding Wheel, in inches.....	6x¾x1½	8x¾x5/8	10x1x¾	4½x¾x1½	8x¾x5/8	10x1x¾
Speed of Motor, no load, R. P. M.....	3500	3400	1750	4500	3000	2100
Slide Travel, in inches.....	1¾	4½	5	1¾	4½	5
Shortest distance from center of shaft to slot in angle plate, in inches.....	45/8	51/16	59/16	37/8	49/16	59/16
Net weight, in pounds.....	37	60	115	22	55	100
STANDARD EQUIPMENT						
Two Grinding Wheels as listed. Seven feet all Rubber Cable attaching Plug and Switch. Wheel Guard for 1½ and 1 H. P. Machines.						
MOTOR SPECIFICATIONS						
	Code Word	Code Word	Code Word	Code Word	Code Word	Code Word
60 Cycle Alternating Current:						
110 Volt, 1 Phase.....	WONSX	WOUBE	WOOFH			
220 Volt, 1 Phase.....	WONTY	WOOCF	WOOGJ			
220 Volt, 3 Phase.....	WONUZ	WOODG	WOCHK			
Direct Current:						
115 Volt.....				WOOJL	WOOLN	WOONP
230 Volt.....				WOOKM	WOOMO	WOOPQ

FURNISHED TO SPECIAL ORDER AT 10 PER CENT EXTRA

Alternating Current Grinders—

Type 2BXA—¼ H. P. for 50 cycles for 1, 2 or 3 Phase at speeds of 3000 and 7700 R. P. M. Also for special voltages from 80 to 250 Volts.

Types 3BXA and 4BXA for 1, 2 or 3 Phase as follows:

3BXA—½ H. P. for 50 cycles at speeds of 3000 and 5200 R. P. M.

4BXA—1 H. P. for 50 cycles at speeds of 1500 and 3400 R. P. M.

4BXA—1 H. P. for 50 cycles at speeds of 3000 and 5200 R. P. M. for internal grinding only.

3BXA and 4BXA for 40 cycles at speeds of 2400 and 4600 R. P. M.

Also for special voltages from 80 to 550 volts.

Direct Current Grinders—¼, ½ and 1 H. P. for voltages from 80 to 250 Volts.

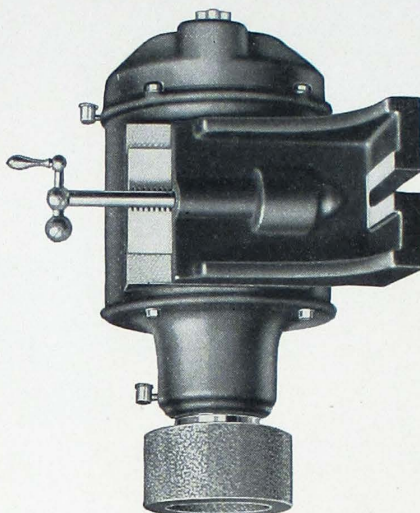
Other details on page 50.

VERTICAL SPINDLE GRINDERS

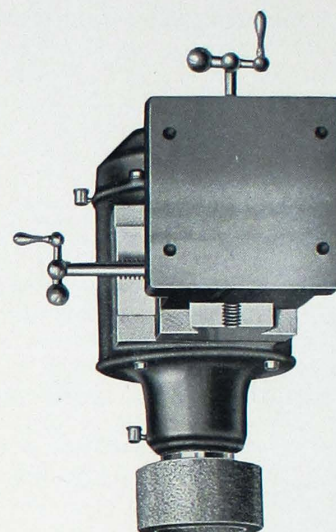
Overall Dimensions given on Page 57



VERTICAL SLIDE ADJUSTMENT
 as shown above can be furnished to special
 order at five per cent extra



HORIZONTAL SLIDE ADJUSTMENT
 as shown above is standard equipment
 and furnished unless otherwise specified



DOUBLE SLIDE ADJUSTMENT
 as shown above can be furnished to special
 order for 1 H. P. and 2 H. P. Grinders
 at fifteen per cent extra

These machines are primarily constructed for thrust grinding with the spindle in horizontal position or with grinding wheel swung down at any angle. They are used with straight or cup shaped grinding wheels as shown and are adapted for a wide range of work.

Bearings are constantly lubricated in an oil bath and fully enclosed in leak proof chambers.

When used in connection with a Boring Mill many internal and surface grinding jobs can be done with one and the same setting. Although affording tool room accuracy these Grinders are ruggedly constructed throughout to meet the demands of general production work.

Motor with liberal reserve power described on page 50.

Standard Equipment: One grinding wheel of either size as listed, connector cable and motor switch equipment of size and type most suitable for the service.

60 CYCLE ALTERNATING CURRENT—CONTINUOUS DUTY (40° C.) H. P. RATING

Code Word	Type	Volts	H.P.	Speed R. P. M. No Load	Grinding Wheel Size in Inches		Weight in Pounds		Boxed Dimen- sions in Inches	Slide Travel in Inches			
					Cup Shape Diameter and Height	Straight Diameter and Face	Net	Gross		Horizon- tal Standard	Vertical when ordered	Double Slide when ordered	
												Horiz.	Vert.
WUAJL WUAKO	4VA 4VA	220 V., 3 Ph. 440 V., 3 Ph.	1	3500 *	6x3 1/4x 1 Hole	7x1x 1 Hole	110	160	13x18x20	6	6	9	6
WOSIN WOSJO	5VA 5VA	220 V., 3 Ph. 440 V., 3 Ph.	2	3500	6x3 1/4x 1 Hole	7x1x 1 Hole	140	200	20x21x25	9	7	9	7
WOSKP WOSLQ	7VA 7VA	220 V., 3 Ph. 440 V., 3 Ph.	5	1750 ◊	8x4x 1 1/4 Hole	12x1 1/2x 1 1/4 Hole	450	550	24x28x30	7	7	.....	.....
XAORT XAPSU	8VA 8VA	220 V., 3 Ph. 440 V., 3 Ph.	7 1/2	1150 *	8x4x 1 1/4 Hole	12x1 1/2x 1 1/4 Hole	520	625	26x30x32	7	7	.....	.....

The above Alternating Current Grinders can be furnished to order for special voltages from 110 to 550 volts at 10 per cent extra. For 50 cycles and for two phase service at standard price.

*Can be furnished at speed of 1750 R. P. M. at standard price.

◇Can be furnished at speed of 1150 R. P. M. at standard price.

DIRECT CURRENT—CONTINUOUS DUTY (40° C.) H. P. RATING

XALOR XAMPS	4VD 4VD	115 230	1	3200 **	6x3 1/4x 1 Hole	8x1x 1 Hole	115	170	13x18x20	6	6	9	6
WUALP WUAOR	6VD 6VD	115 230	3	2800 †	6x3 1/4x 1 1/4 Hole	7x1x 1 1/4 Hole	450	550	18x28x30	9	9	.....	.....

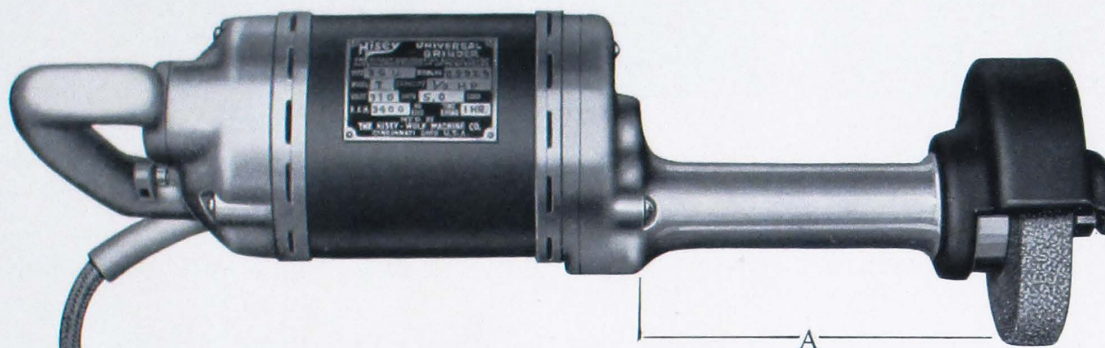
The above Direct Current Grinders can be supplied to order for special voltages from 80 to 250 volts at 10 per cent extra.

**Can be furnished at speed of 2100 R. P. M. at standard price.

†Can be furnished at speed of 1600 R. P. M. at standard price.

1/3 H. P. PORTABLE GRINDERS and BUFFERS

WITH BALL BEARING MOTOR AND TIMKEN ROLLER BEARING
 GRINDING SPINDLE



This Grinder and Buffer is equipped with a HISEY Universal Motor primarily designed for the service and liberally proportioned to withstand heavy momentary overloads.

Equipped with Two Pole Switch conveniently controlled at the grip handle.

The Cast Steel Wheel Guard in design and specifications conforms to the A. E. S. C. standards. It is adjustable and can be placed at any angle most convenient for the operator. End Cover is readily removable and affords quick renewal of grinding wheels.

Other details with reference to grinding wheels, direction of rotation and ground wire described on page 50.

UNIVERSAL MOTOR GRINDERS and BUFFERS

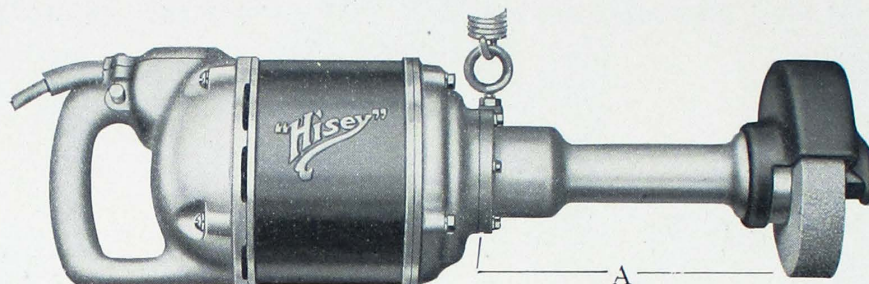
Will Operate on Alternating Current and Direct Current of the same Voltage

Code Word	Type	Volts	H.P.	Speed R.P.M. No Load	Size of Wheel in Inches	Weight in Pounds			Dimensions in Inches				Standard Equipment
						Net without Guard	Net with Appr'd Steel Guard	Gross	Length Over-all	Length Ext. A	Diam.	Boxed	
WOTGJ	3GU	110	1/3	3800	5x3/4x1/2 Hole	20	23	35	22	7	5	24x10x8 1/2	Grinding Wheel as listed. Adjustable and approved steel wheel guard. 10 feet All Rubber Cable with suitable attaching plug.
WOTHK	3GU	220											

Can be supplied to special order for any voltages from 32 to 250 volts at 10 per cent extra.

1/2 H. P. PORTABLE GRINDERS and BUFFERS

WITH BALL BEARING MOTOR AND TIMKEN ROLLER BEARING GRINDING SPINDLE



The Motor—For single phase alternating current, machines are equipped with improved commutating Type Repulsion Induction Motors, which unlike the old Split Phase Motor have no dragging centrifugal switch. They will start and pick up speed instantly under any load within twice their rated capacity. Starting current under all conditions is unusually low, being less than one-third the current consumption of Split Phase Motors. Low voltage so often encountered, due to line drop and other existing conditions which cannot always be overcome, is the cause of much trouble in Split Phase Motors.

Low voltage has no objectionable effect on these new HISEY Single Phase Machines.

For two and three phase service a ruggedly built squirrel-cage motor is used.

For Direct Current a compound-wound motor is especially designed for the service.

Equipped with switch conveniently controlled at the grip handle.

Details with reference to grinding wheels, direction of rotation, and ground wire described on page 50.

The Cast Steel Wheel Guard in design and specifications conforms to the A. E. S. C. standards. It is adjustable and can be placed at any angle most convenient for the operator. End cover is readily removable and affords quick renewal of grinding wheels.

60 CYCLE ALTERNATING CURRENT—CONTINUOUS DUTY (40° C.) H. P. RATING

Code Word	Type	Volts	H.P.	Speed R.P.M. No Load	Size of Wheel in Inches	Weight in Pounds			Dimensions in Inches				Standard Equipment
						Net without Guard	Net with App'd Steel Guard	Gross	Length Overall	Length Ext. A	Diam.	Boxed	
WUADE	3GA	110 V., 1 Ph.											Grinding Wheel. Adjustable and approved steel wheel guard. 10 feet Rubber Cable and Connector Plug. Suspension Spring.
WUAFE	3GA	220 V., 1 Ph.											
WUAFG	3GA	220 V., 3 Ph.	1/2	3425	6x1 1/4 3/4 Hole	38	42	65	24 1/4	9 3/4	6 3/4	10x12 x30	
XATWZ	3GA	440 V., 3 Ph.											

Single phase machines can conveniently be connected to any lamp socket.

Two and three phase Grinders are for connecting to power circuit lines.

The above machines can be furnished to order at 10 per cent extra as follows:

For special voltage from 80 to 275 volts, also for two phase service.

For 50 cycles at speed of 2825 R. P. M.

For 40 cycles at speed of 2225 R. P. M.

For 25 cycles at speed of 1425 R. P. M.

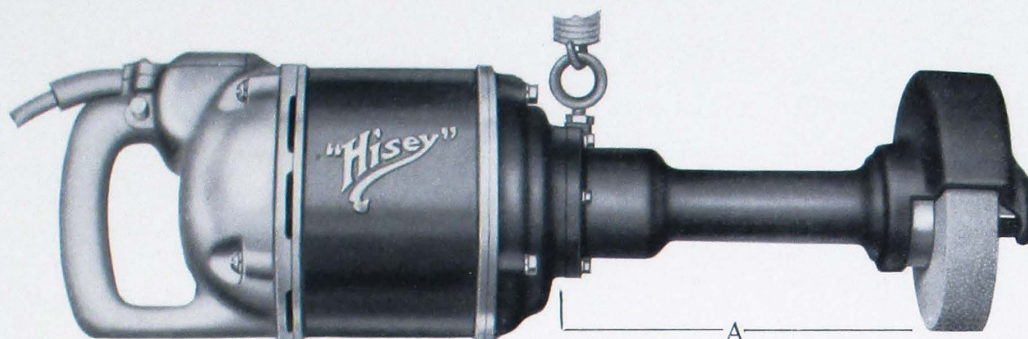
DIRECT CURRENT—CONTINUOUS DUTY (40° C.) H. P. RATING

WUAGH	3GD	115											Grinding wheel. Adjustable and approved steel wheel guard. 10 feet Rubber Cable and Connector Plug. Suspension Spring.
WUAHJ	3GD	230	1/2	3550	6x1 1/4 3/4 Hole	38	42	65	24 1/4	9 3/4	6 3/4	10x12 x30	

The above Direct Current Grinders can be furnished for any special voltages from 32 to 250 volts at 10 per cent extra.

1 and 2 H. P. PORTABLE GRINDERS and BUFFERS

WITH BALL BEARING MOTOR AND TIMKEN ROLLER BEARING
GRINDING SPINDLE



These are heavy duty machines throughout with electrical and mechanical details proportioned for the most severe service.

The Motor—as for design and general characteristics is the same as described on page 62.

Details with reference to grinding wheels, direction of rotation, and ground wire described on page 50.

The Cast Steel Wheel Guard in design and specifications conforms to the A. E. S. C. standards. It is adjustable and can be placed at any angle most convenient for the operator. End cover is readily removable and affords quick renewal of grinding wheels.

60 CYCLE ALTERNATING CURRENT—CONTINUOUS DUTY (40° C.) H. P. RATING

Code Word	Type	Volts	H.P.	Speed R.P.M. No Load	Size of Wheel in Inches	Weight in Pounds			Dimensions in Inches				Standard Equipment
						Net without Guard	Net with Appr'd Steel Guard	Gross	Length Over-all	Length Ext. A	Diam.	Boxed	
WXRSV WXSTW WXTUY XARTW	4GA 4GA 4GA 4GA	110 V., 1 Ph. 220 V., 1 Ph. 220 V., 3 Ph. 440 V., 3 Ph.	1	3400	8x1 1/2 1 Hole	85	90	150	31	14	8 5/8	14x16 x35	Grinding wheel. Adjustable and approved steel wheel guard. 10 feet Rubber Cable and Con- nector Plug. Suspension Spring.
WYABC WYBCD WYCDE XASUY	5GA 5GA 5GA 5GA	110 V., 1 Ph. 220 V., 1 Ph. 220 V., 3 Ph. 440 V., 3 Ph.	2	1800	10x1 1/2 1 Hole	120	127	200	32	14	8 5/8	14x17 x36	

Single phase machines can conveniently be connected to any lamp socket.

Two and three phase Grinders are for connecting to power circuit lines.

The above machines can be furnished to order at 10 per cent extra as follows:

For special intermediate voltage from 80 to 440 volts, also for two phase service.

For lower frequency as follows:

Type 4GA at speed of.....	50 cycles 2825 R. P. M.	40 cycles 2225 R. P. M.	25 cycles 1425 R. P. M.
Type 5GA at speed of.....	1425 R. P. M.	2225 R. P. M.	1425 R. P. M.

DIRECT CURRENT—CONTINUOUS DUTY (40° C.) H. P. RATING

WYDEF WYCFG	4GD 4GD	115 230	1	3400	8x1 1/2 1 Hole	85	90	150	31	14	8 5/8	14x16 x35	Grinding wheel. Adjustable and approved steel wheel guard. 10 Feet Rubber Cable and Con- nector Plug. Suspension Spring.
WYFGH WYGHK	5GD 5GD	115 230	2	2200	10x1 1/2 1 Hole	120	127	200	32	14	8 5/8	14x17 x36	

The above Direct Current Grinders can be furnished to order for special voltage from 50 to 250 volts at 10 per cent extra.

NOTE: The use of 2 H. P. machines in conjunction with 1 H. P. offers an unusual combination of Economy and Efficiency. When the original 10-inch diameter Grinding wheel of the 2 H. P. Grinder is worn to 8 inches it should be transferred to a 1 H. P. machine operating at the higher speed, thereby maintaining the original efficiency.

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GUARANTEE—The material and workmanship in every HISEY product is subject to rigid inspection during process of manufacture and is covered by a one-year guarantee against defects.

NOTE—All machines will operate successfully on any voltage within 10 per cent of the name plate rating.

PAINT COLOR—is The National Machine Tool Builders' standard grey. Any other color \$10.00 extra.

THE HISEY-WOLF MACHINE CO.

*"It's High Grade
If Hisey Made"*



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CINCINNATI, OHIO, U.S.A.

Electric **DRILLS . . . GRINDERS . . . BUFFERS**